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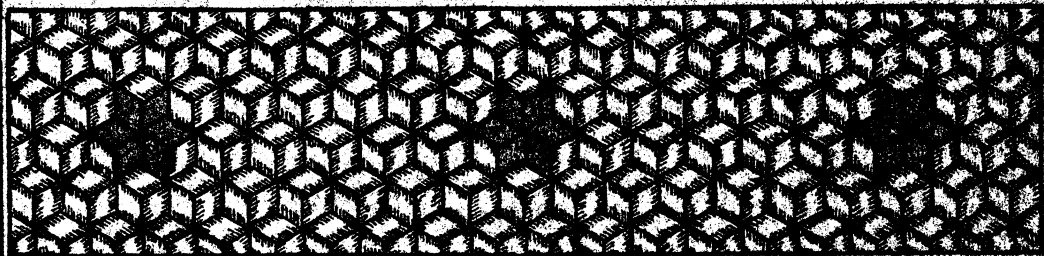
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No. 1



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Renaissance lace parasol, Concepcion Primary School.

Bobbin lace parasol, Concepcion Primary School.

TWO LACE PARASOLS EXHIBITED AT SECOND PHILIPPINE EXPOSITION, MANILA, FEBRUARY, 1914.

The Philippine Craftsman

VOL. III

MANILA, JULY, 1914

No. 1

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TABLE OF CONTENTS

	Page.
Some Common Baskets of the Philippines. By Luther Parker	1
The Ninth Vacation Assembly. By Andrew W. Cain and James F. Scouller - - - - -	26
The Conferences for Industrial Teachers at Baguio, May, 1914. By Leroy R. Sawyer - - - - -	36
The New Accounting System for Provincial Trade Schools. By Bruce Ingersoll - - - - -	40
Technical Bulletins - - - - -	44
Explanation of Industrial Courses Outlined for the School Year 1914-15 - - - - -	57
Editorial - - - - -	63
Industrial Notes - - - - -	67

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The success of the movement for vocational education means peace, precision, and prosperity in our industries, and happiness and hope in our homes.

—*William C. Redfield, Secretary of Commerce.*

The Philippine Craftsman

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No. 1

SOME COMMON BASKETS OF THE PHILIPPINES.

By LUTHER PARKER, Industrial Inspector.

IN THE leading article of THE PHILIPPINE CRAFTSMAN for July, 1912, on pages 1 and 2, the statement was made that the basketry of the non-Christian tribes of the Philippines was interesting, and passing mention was made of the common bamboo baskets of the Christian Filipinos.

The writer took up the subject of the primitive basketry of the non-Christian people in the August, 1913, number of THE PHILIPPINE CRAFTSMAN.

The present article deals mainly with the common baskets, such as are in daily use by the Christian Filipino people and which form the major part of the baskets sold in the local markets. Usually unadorned and of a rather coarse and unfinished appearance these useful baskets have not appealed to basketry teachers in general as have those of more artistic appearance.

I believe that the pursuit of the æsthetic may under certain conditions be allowed to obscure the practical, and this article is written with the hope of demonstrating that the teaching of ordinary basketry, while of great economic importance, is also not devoid of interest.

The ethnic groups that are considered are the Ibanags, Ilocanos, Pangasinans, Pampangans, Tagalogs, Bicol, and Visayans; that is, the peoples of the Christian provinces from the north to the south of the Archipelago.

I have gathered the typical, common baskets of the Ibanags, Visayans, Pampangans, Pangasinans, and Ilocanos, and the Bureau of Education has a rather full collection of Tagalog baskets. The Pampangan baskets are quite similar to those of the Tagalogs.

The Pangasinan baskets are somewhat like the Tagalog baskets but have also some characteristics of the Ilocano baskets, which in turn appear to have acquired some of the characteristics of the baskets of the mountain peoples, the Ilocanos being contiguous to both groups.

The baskets of the Bicolos have not yet been collected as a whole, though a few examples are in the Industrial Museum of the Bureau of Education.



Plate 1. The simplest basket known—a single palm-leaf crab basket.

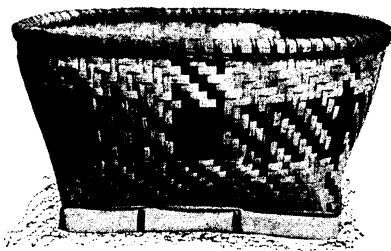


Plate 2. Ilocano rice-holding basket.

The basketry of the Ilocanos is probably the most distinctive. This is partly due to their isolation and the consequent retention of old types, and partly to the influence of the near-by mountain peoples, who, like all the non-Christians, have retained old and distinctive types. The Ilocanos have the same types of twilled decoration (see Plate 46) as the Javanese, the Skarans and

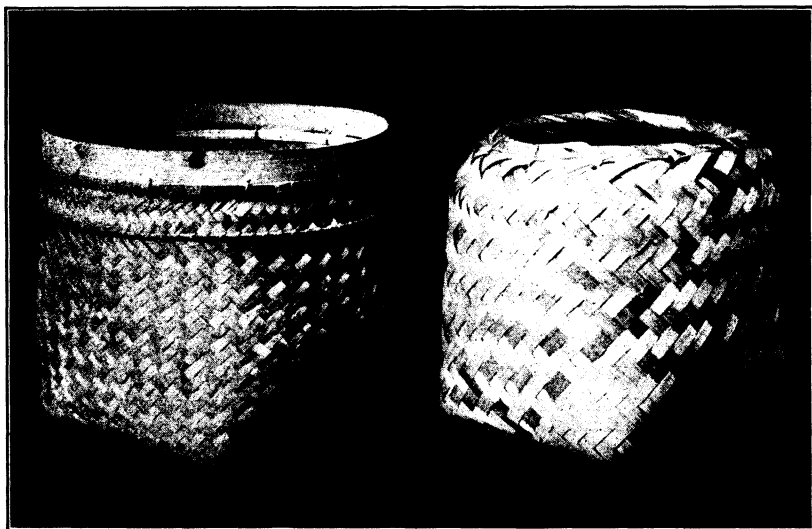


Plate 3. Holding basket, Cebu (left); holding basket, Bohol (right).

Kanowits of Sarawak, Borneo, the Tirurays of southern Mindanao near Cotabato, and the Visayans of the Miagao, Iloilo, area.

This type has been lost by the other Christian peoples, provided

they ever knew it. The basketry of the Ibanag area is very poor as to types and weaves except as influenced by that of the Ilocanos and mountain peoples.

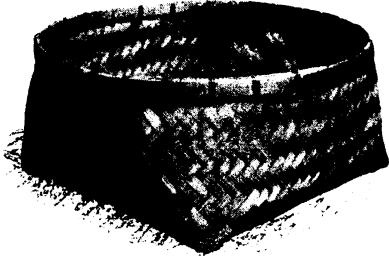


Plate 4. Pampangan holding basket.

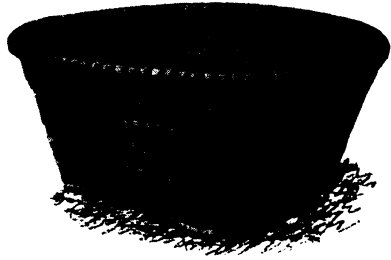


Plate 5. Cagayan holding basket. Negrito work.

The Visayan basketry stands next to the Ilocano as to varieties of types but is far down the line as to technic, due no doubt to the fact that the Visayans are farther removed from primitive conditions than the other peoples of the Islands, being an older civilization as is evidenced by their geographical situation with respect to Borneo and its parent countries, their dense popula-

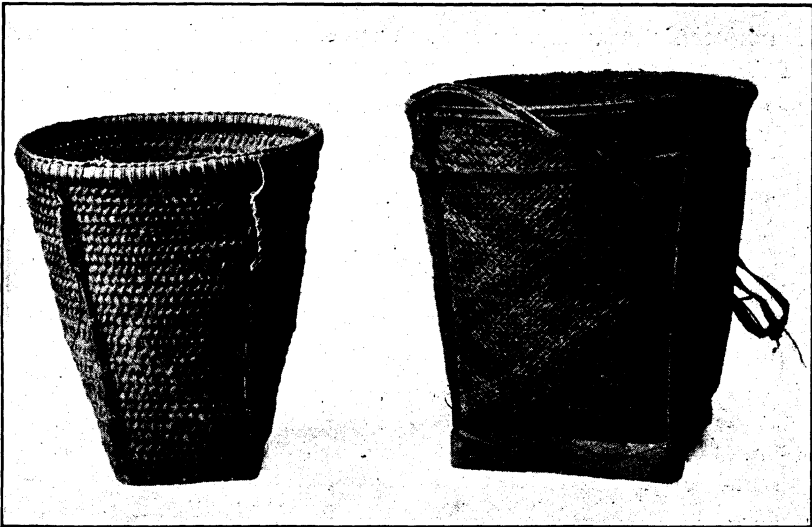


Plate 6. Holding basket, Bukidnons of Occidental Negros (left); holding basket, Tagbanuas of Palawan (right).

tion, and the loss of that traditional interest in the technic and design of handwork that comes with an older civilization and a dependence upon foreign markets.

The common baskets of the Tagalogs, Pampangans, and Bicolos are so similar in general characteristics as not to merit separate treatment except as to minor details. One striking difference

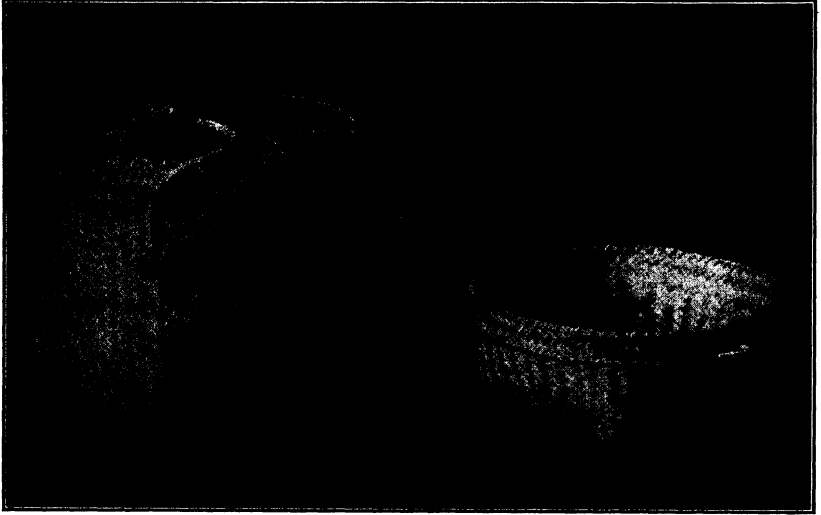


Plate 7. Holding and carrying basket, Cebu (left); holding basket, Cebu (right).

is noticeable in the material and weave of the rice-holding baskets of Albay Province in that they are made of karagumoy leaves in the mad weave, which is the common weave of that section.

Probably the three baskets most commonly used by all the

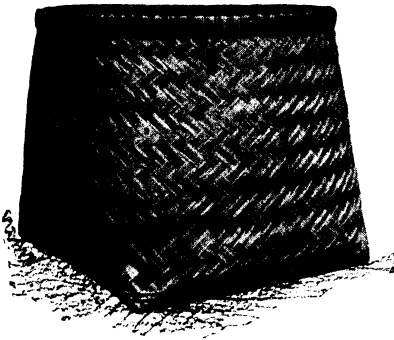


Plate 8. Holding basket, Pangasinan.

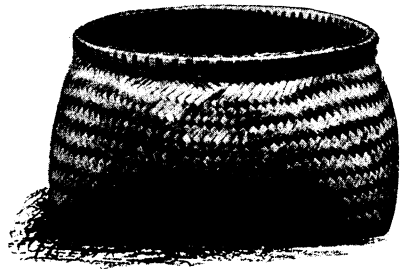


Plate 9. Tagalog "bakol" or rice-holding basket, Bulacan.

peoples of the Philippines are the holding basket (Plates 2 to 12, inclusive); the winnowing basket (Plates 13 to 16, inclusive); and the sieve (Plate 18).

DIALECTICAL TERMINOLOGY.

The rice-holding basket is called "bakol" or "tacuyan" in Tagalog, "salicap" in Pampango, "labba" in Ilocano, "bacol"

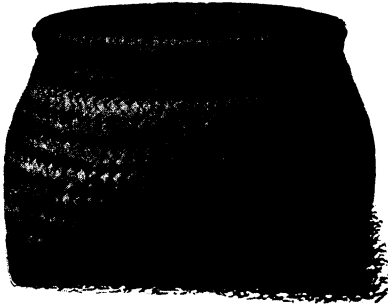


Plate 10. Tagalog "tacuyan" of Batangas.

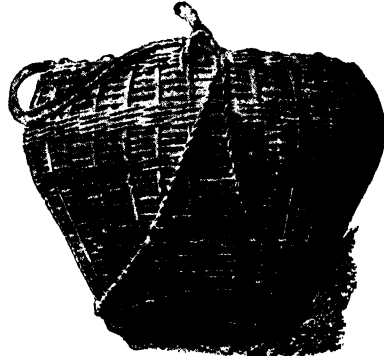


Plate 11. Holding and carrying basket of Camaguin, Babuyan.

in Bicol, "tabig" in the Visayan of Panay, and "bocsat" in Pangasinan.

The winnowing basket is called "bilao" in Tagalog, "igu" in Pampango, "bigao" in Ilocano, "nigu" in Bicol, and "nigu" in the Visayan of Cebu (oval type).

The sieve is called "bistay" in Tagalog, "bitsay" in Pampango, "yacayacan" in Ilocano, "saligsigan" in Bicol, "agagan" in the Visayan of Leyte, and "yacayacan" in Pangasinan.

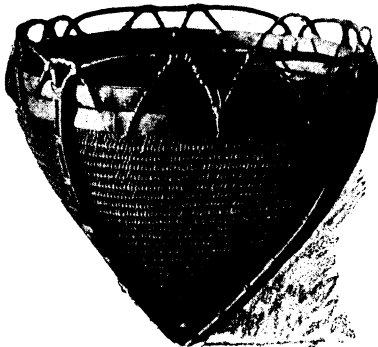


Plate 12. Carrying basket of Itbayat, Batanes Islands.

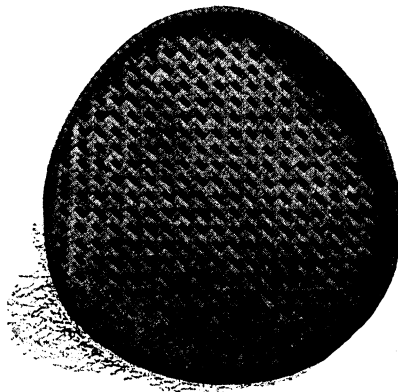


Plate 13. Ilocano winnowing basket.

A basket very similar to the winnowing basket is used as a platter in parts of the Visayas, and is called "dulang" in Panay. The word "dulang" is also Malay and means tray.

This word is used in the six dialects above named to mean the low eating table around which the people squat on their

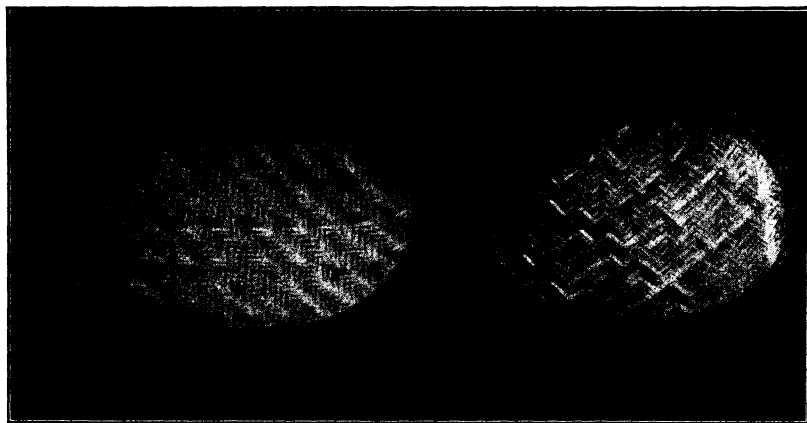


Plate 14. Visayan winnowing basket (left); most common type of winnowing basket (right).

heels. This tray or platter is also made square as in Plate 17, and is then called "calalao" in the Visayan of Panay.

Variations in language are to be found in the same ethnic groups. In the Visayas there is quite a difference in the dialects of southern and northern Panay, and in the dialects of Panay, Cebu, and Samar.

Variations occur in the dialects of the Tagalog provinces, as

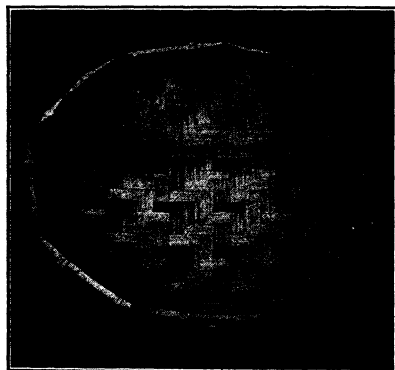


Plate 15. Display tray from Cebu.

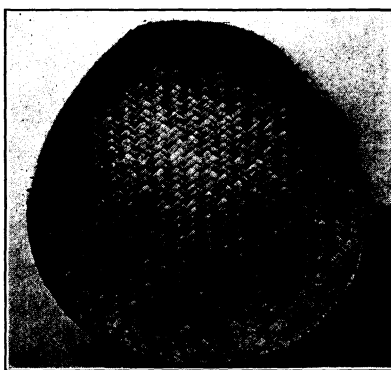


Plate 16. Ibanag winnowing basket, Cagayan.

witness the "bakul" of Bulacan and the "tacuyan" of Batangas. (See Plates 9 and 10.)

MATERIALS.

The materials used for making ordinary baskets are bamboo and rattan, bamboo being used quite generally by the Christian Filipinos, with rattan for finishing the rims, while the non-

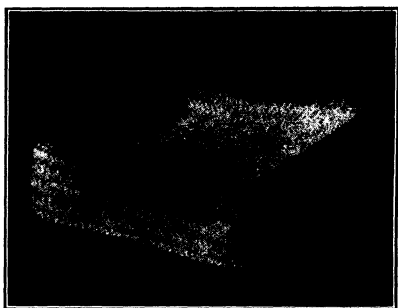


Plate 17. Food tray or platter, Iloilo.

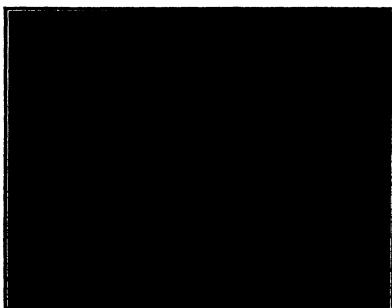


Plate 18. "Bacacay" sieve from Cebu.

Christians generally use rattan to a large extent. The reason lies in the distribution of the materials.

Although various kinds of bamboo are used for baskets the most used is the ordinary spiny bamboo or "cauayan" (*Bambusa blumeana*), which is generally utilized for house building.

"Bacacay" (*Schizostachyum hallieri*), a small bamboo common in the Visayas, is occasionally used. (See Plate 18.) "Nito" (*Lygodium circinnatum*) and "irao" (*Dendrobium crumenatum*) are used for decorative purposes and for binding edges.

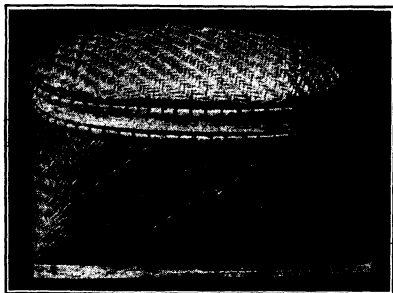


Plate 19. A banban tampipi from Cebu.

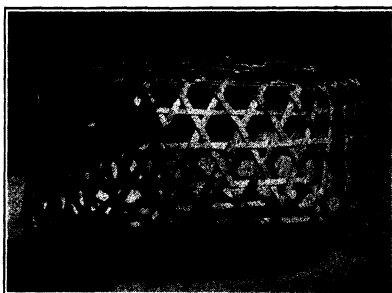


Plate 20. Egg basket, hexagonal weave.

"Banban" (*Donax cannaeformis*) is sometimes used. (See Plate 19.)

Expert Chinese basket makers prepare their splints from green bamboo and weave them at once into a coarse basket.

Care is taken in weaving with bamboo splints not to make a short bend as the bamboo breaks easily if bent at a right angle.

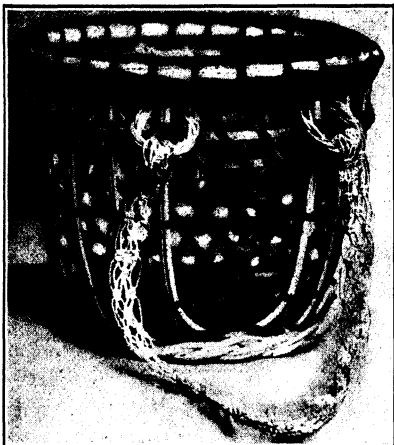


Plate 21. Carrying basket, hexagonal weave.

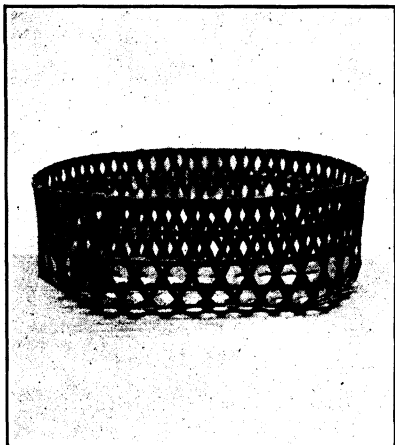


Plate 22. Simple trinket basket.

TOOLS.

A cheap saw and a short, heavy knife with a thick back are the only tools used by an expert Chinese basket maker in preparing the bamboo splints. With such an instrument a splint is easily made of less than one millimeter in thickness.

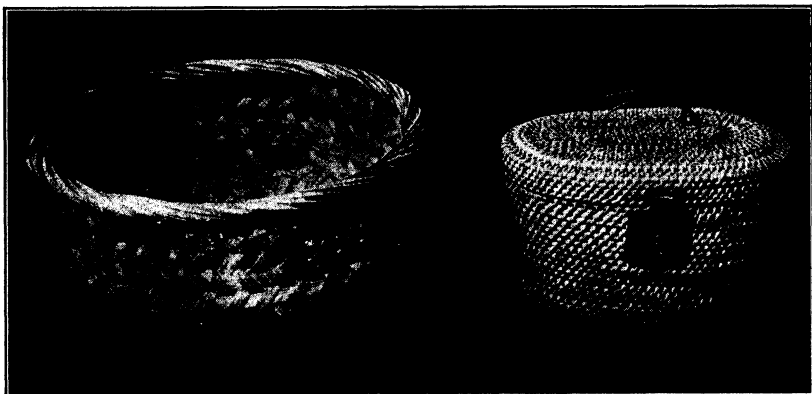


Plate 23. Chinese holding and carrying basket (left); Chinese tea caddy, rattan ool (right).

SIZE OF STRIPS.

Young children should not be required to weave mats with narrow splints, but should commence the work with strips about half an inch wide.

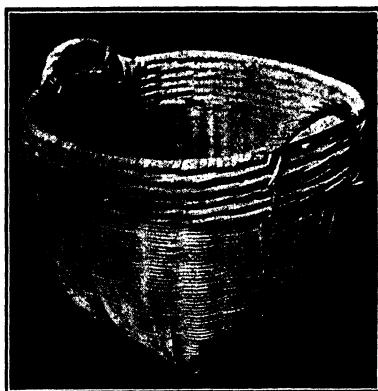


Plate 24. Chinese shipping basket.

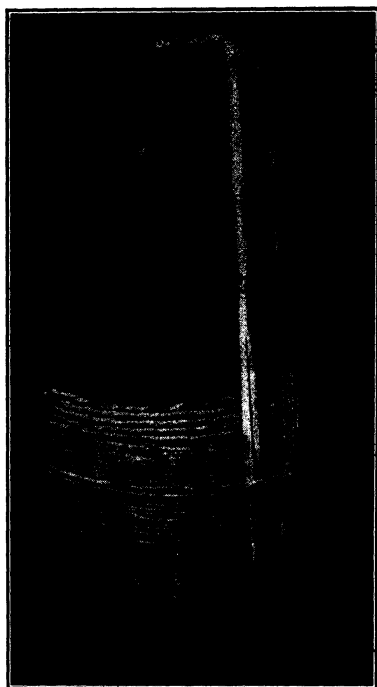


Plate 25. Chinese market basket.



Plate 26. Pangasinan market basket.

The width of the strips can be decreased progressively through the course until they are about one-eighth of an inch wide.

Six inches is a convenient length for splints used in weaving the square mats shown in Plates 32 to 34, inclusive.

The nomenclature of weaves used in this article is based on that appearing in the exhaustive treatise on Indian basketry by Otis W. Mason in the Report of the United States National Museum of 1902, with the addition of the names of weaves used locally.

The coiled basket and the web basket having been dealt

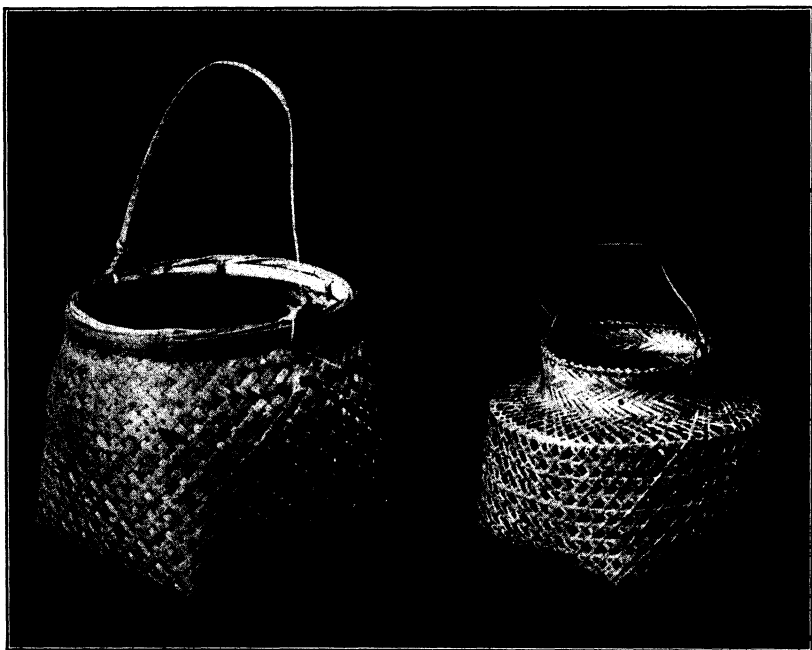


Plate 27. Market baskets, Iloilo.

with in the first article referred to, this article will be concerned principally with the basket made in the twilled or mat weave, or as better known locally, the "sauale" or "sawali" weave.

A preliminary statement as to some of the weaves to be considered for the bottoms and sides of common baskets will be in place at this point.

MAT WEAVE.

The simplest mat weave is made by using splints of uniform length, width, and thickness and weaving them into a simple checkerwork mat of under one and over one, the warp lying

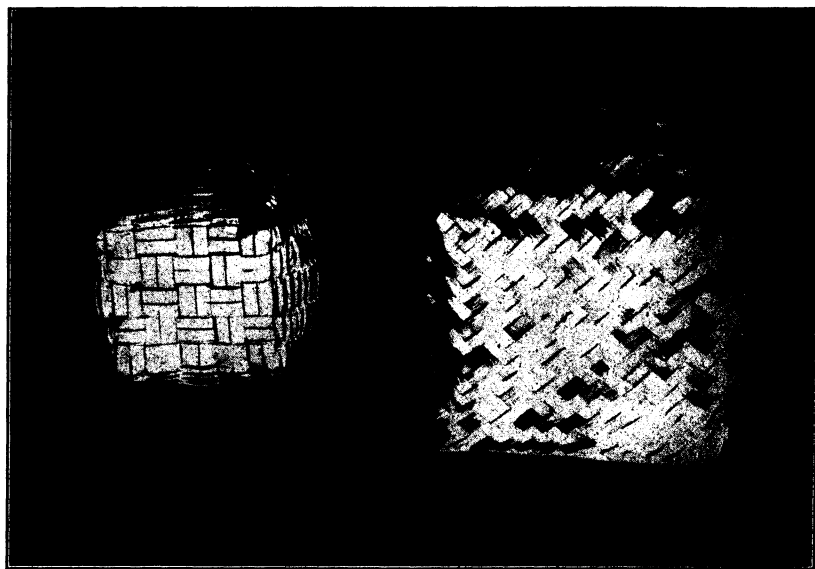


Plate 28. Bottom of palm-leaf trinket basket (left); bottom of bamboo rice basket (right).

at right angles to the weft and producing a mat made up of squares as shown in Plate 35. (This weave is called "binanig" in the Bicol dialect, from "banig," mat.)

These checks may be either square or rectangular depending upon the relative widths of the warp and weft splints or weaving elements.

HEXAGONAL WEAVE.

The second weave to be discussed is the hexagonal open weave in which the "vertical elements answering to warps are crossed"

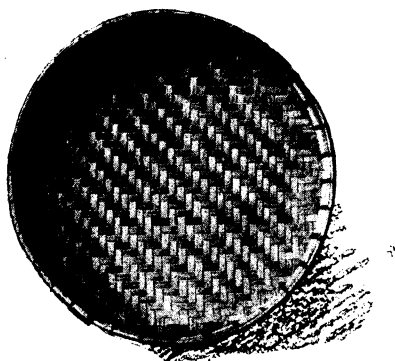


Plate 29. Winnowing or display basket.

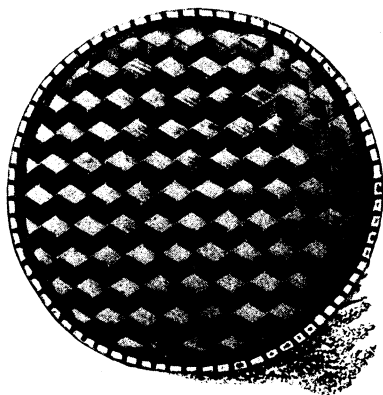


Plate 30. Pin tray, showing bottom and binding of rim.

at an acute angle but not interlaced being held together by a weft splint that goes under one, over one, horizontally, crossing

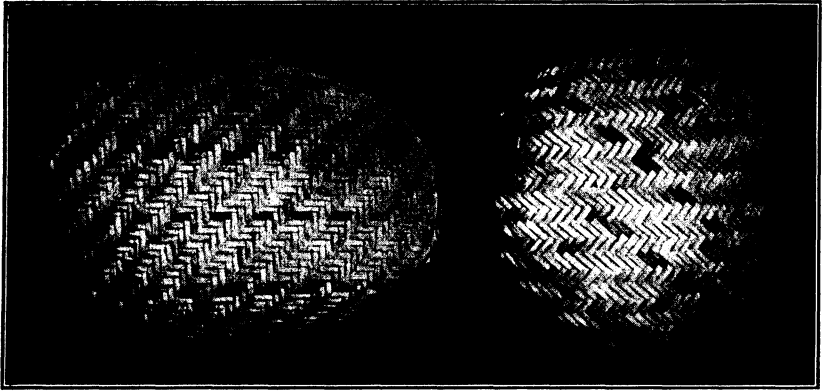


Plate 31. Oval "nigu," Cebu (left); round "nigu," Cebu (right).

the warp splints inside the points of the diamond-shaped open spaces which are thereby converted into hexagons, hence the name of the weave. (See Plate 37.) This is the Bicol "inalat" weave, from "alat," the openwork, fowler's or fisherman's basket

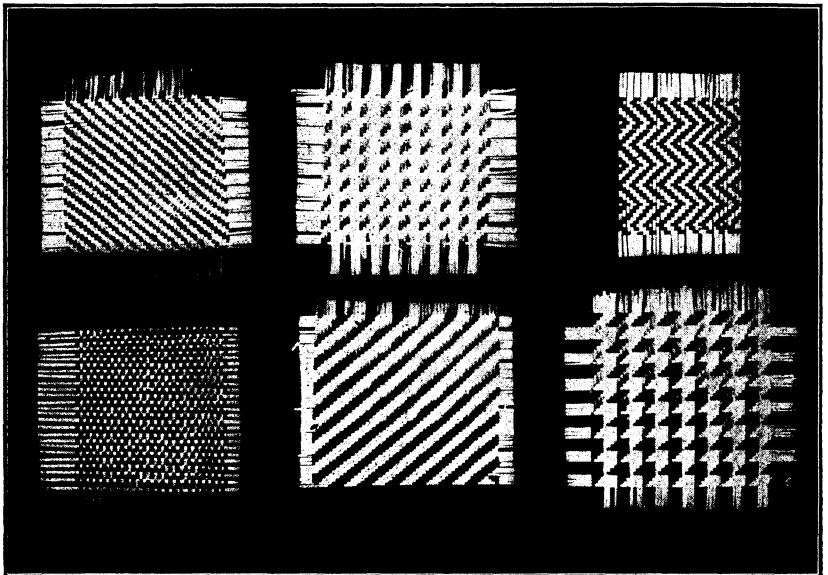


Plate 32. Exercises 1 to 6 in primary mat weaving with bamboo splints.

common to many peoples. This simple but pleasing weave will be found among the Negritos in the fastnesses of the Malay

Peninsula as well as among those in the little-visited portions of the Philippines. The Athabascan Indians of the Mackenzie River, Canada, know this weave (see Plate 123, Report of National Museum, 1902) as well as the Jamamadi Indians of the Rio Purus, Brazil. (See Plate 240, same volume.)

This weave is very common in the Philippines. Baskets for holding and carrying eggs, domestic fowls, birds, and fruits, and for catching fish are made in this weave. It is commonly used in the Visayas as well as in the north.

Plate 20 shows a simple miniature egg basket that can be made in grade one, while Plate 21 shows a more elaborate miniature

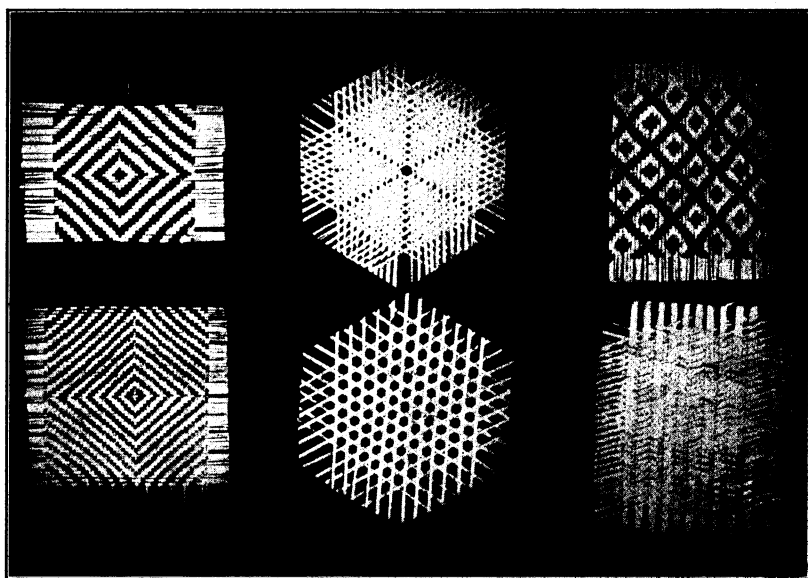


Plate 33. Exercises 7 to 12 in primary mat weaving with bamboo splints.

basket, a suitable model evolved for a waste basket or carrying basket. It can be made by the more skillful boys in grades two and three.

Plate 22 shows a simple trinket basket suitable for first-grade work.

A variation of this weave is found in baskets made by Chinese weavers who are established in Manila on Calle Asuncion, district of Binondo, where a large number of baskets are woven of bamboo and of rattan.

The hexagonal type of weave is preserved with the difference that the vertical elements crossing each other at an acute angle are interlaced, under one and over one. (See Plate 42.) A

similar weave, but of closer texture is shown in Plate 23. This latter basket is made in large numbers by the Chinese of Calle

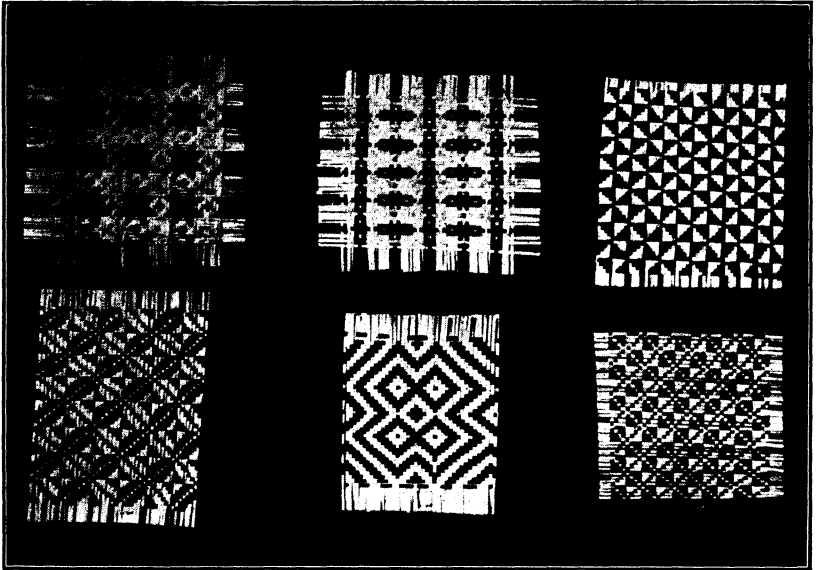


Plate 34. Exercises 13 to 18 in primary mat weaving with bamboo splints.

Asuncion, and used in pairs swung on the end of a carrying stick by Chinese carriers and peddlers. The weave in this burden

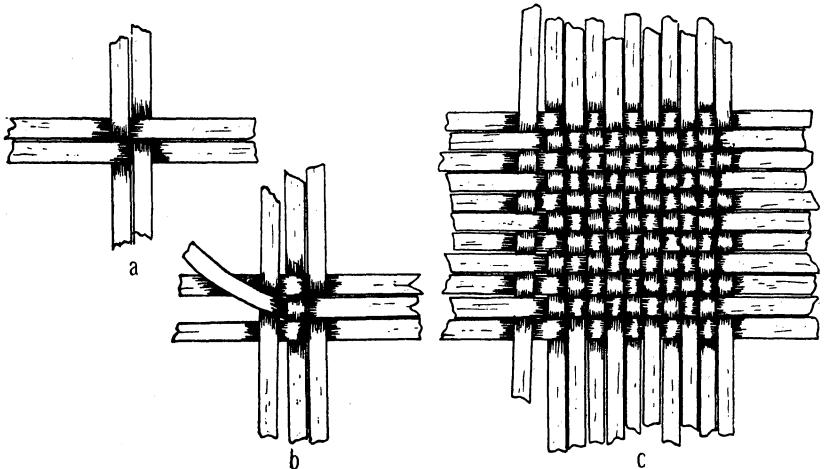


Plate 35. Bamboo mat, under and over weave.

basket is a typical Chinese weave, and this particular type of basket, though plentiful in and near Manila and among Chinese

generally throughout the Islands, is not copied by the Filipinos to any extent. It has remained typical of the Chinese through

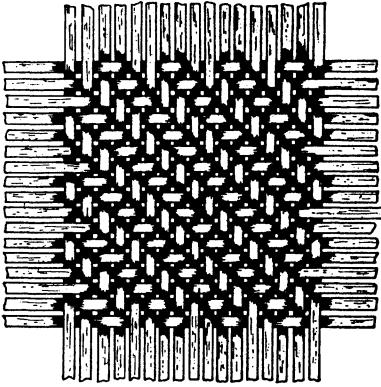


Plate 36. Mat for sieve.

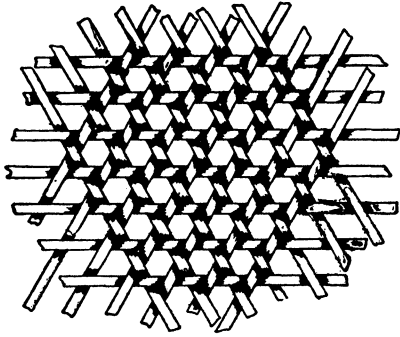


Plate 37. Hexagonal weave.

their centuries of residence in the Philippines. A similar weave, however, is found among the non-Christians in the mountains of southern Occidental Negros. (See Plate 6.)

While on the subject of the influence of the Chinese on basketry in the Philippines it may be well to take up the types that are undoubtedly Chinese and discuss them. Fig. 23b shows the well-known caddy or receptacle for a small teapot and cup. This basket is said to be imported from Amoy, the source of much of the cheap pottery sold in the Philippines.

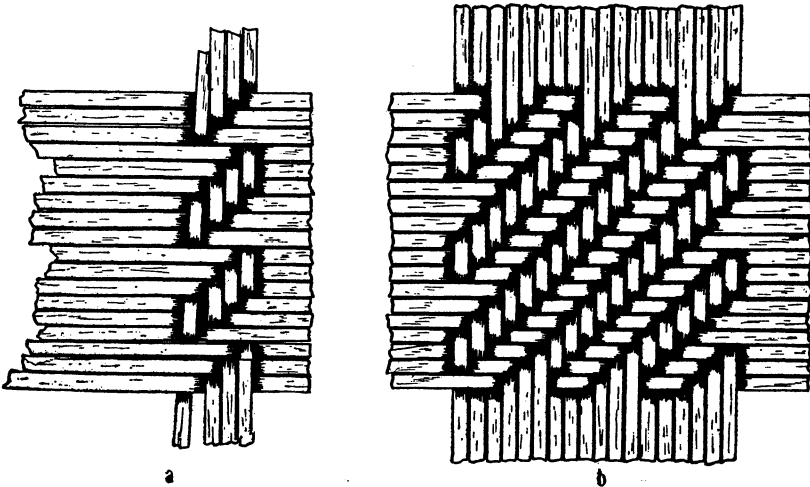


Plate 38. Herringbone design, sawali weave.

After a study of the other types of basketry common to China and the Philippines and of undoubted Chinese origin

(See Plates 23, 24, 25) it is my opinion that the rattan coil basket shown in Plate 23b is the kind of basket spoken of

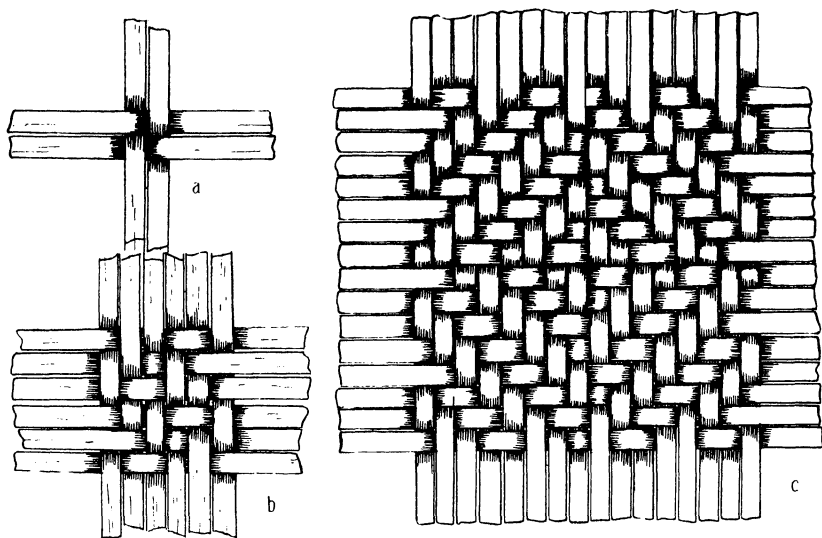


Plate 39. Bamboo mat with splints at right angles.

by Chao Ju-kua as an export from China to the Philippines about the beginning of the thirteenth century or earlier. This opinion is based partly on the fact that Chinese pot-

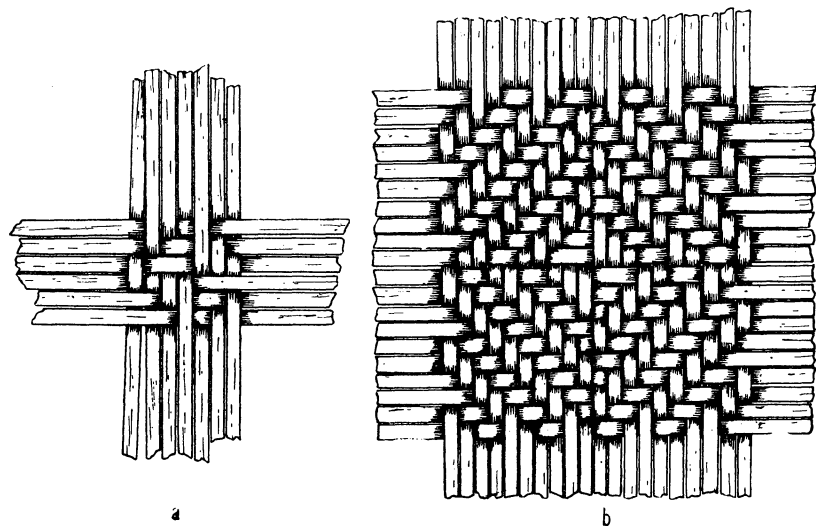


Plate 40. Sawali weave, diamond design.

tery has been highly prized in the Philippines from the earliest times, and a basket of the type figured would appeal

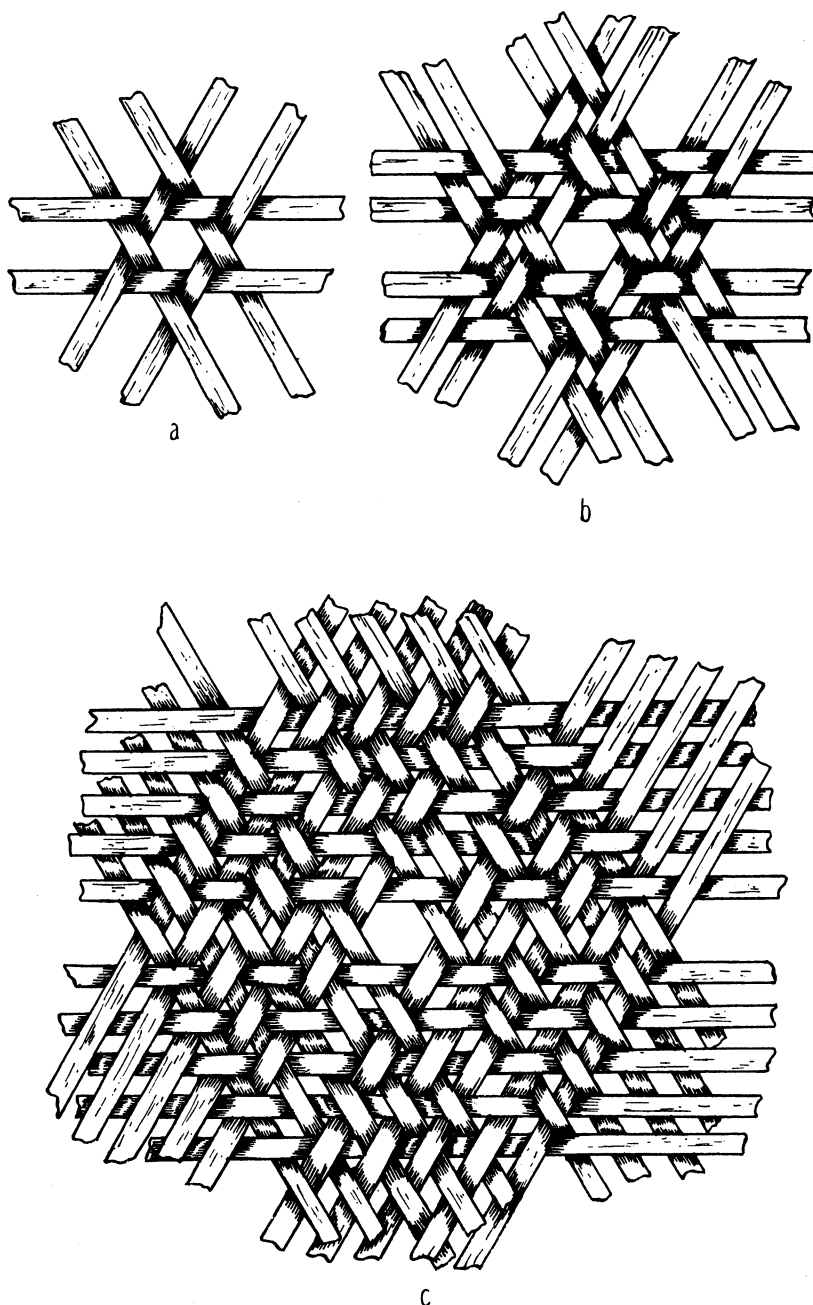


Plate 41. Hexagonal weave, Chinese type (bottom).

to the chief men who could own pottery. This type of basket is found among the Ifugaos, who also own Chinese pottery of pre-Spanish times; among the mountaineers of Samar, as an old weave; and among the Tirurays of Mindanao.

Since pottery of Chinese manufacture is found in burial caves of the Visayan group under circumstances that prove a trade with China for a long period previous to the Spanish conquest, it is but reasonable to infer that the Chinese coiled weave now found only in old, isolated communities was introduced originally from China. It is interesting to note that the Alaskan Eskimo has the same coiled weave. (See Plate 26, Report of U. S. National Museum, 1902.)

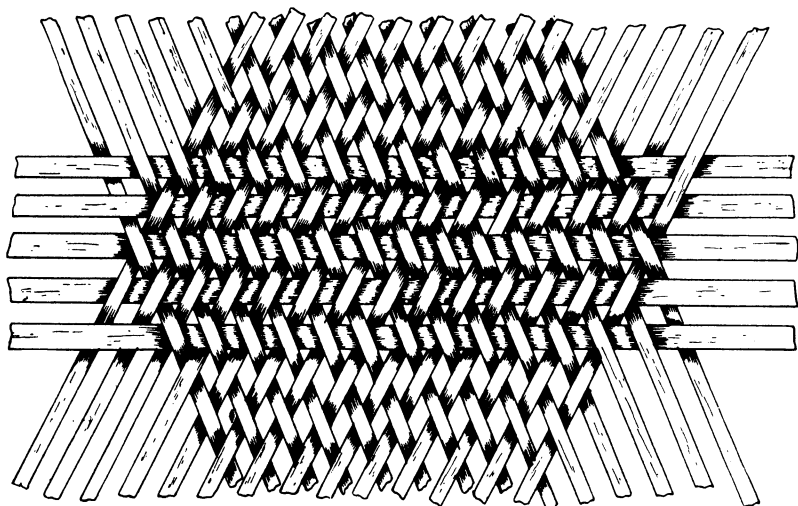


Plate 42. Hexagonal weave, Chinese type (side).

Plate 24 shows a bamboo, web-weave basket in common use in Manila, especially by the Chinese, to hold vegetables, fruit, etc., in the stores. These baskets come in from China as containers of eggs, fruit, and vegetables. As far as I know they are not copied by the Filipinos.

Plate 25 shows a Chinese market basket of bamboo in the web-weave that figures in a small way as an import. It is quite commonly used for a market basket in Manila but not known generally in the provinces. The common rice-holding basket of Pangasinan Province has been fitted with a simple bamboo-splint handle thus making a very satisfactory market basket. (See Plate 26.)

Plate 27 shows a market basket from Iloilo Province. The handle is of rattan.

SAWALI OR TWILLED WEAVE.

The weave most commonly found in ordinary basketry is the under-two-and-over-two weave known in Bicol as "salanigo," from the words "salad" meaning weave and "nigo," the flat, winnowing basket ("bilao," Tagalog). This weave is also known as the "binalantac" weave, in Bicol, from the Bicol word "lantac," to jump over. It is in this weave that many of the diag-

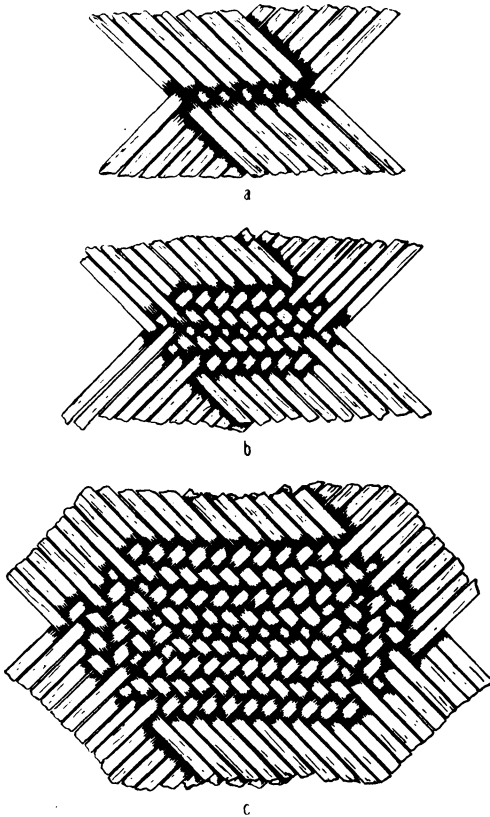


Plate 43. Sawali weave, diagonal splints.

onal effects are obtained that make the sawali weaves so interesting and pleasing. For detailed instructions regarding the sawali weaves see *THE PHILIPPINE CRAFTSMAN* of September, 1912, pages 170 to 180, with the included plates, Nos. VII to XIX.

This appears to be the most typical and best known weave in the Philippines. This fact is due, no doubt, to the nature of the material used—bamboo, rattan, or similar fibers—which

fall into this weave naturally when woven in variations of the under-and-over weave.

The diagonal or twilled effects are obtained by placing the warp and weft at right or acute angles to each other and weaving under two and over two.

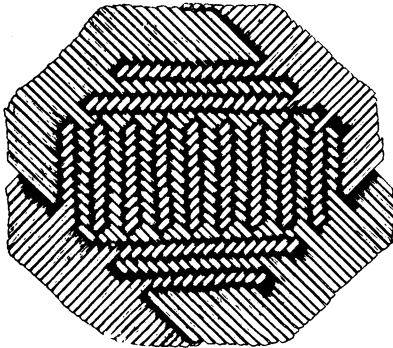


Plate 44. "Tacuyan" weave (side).

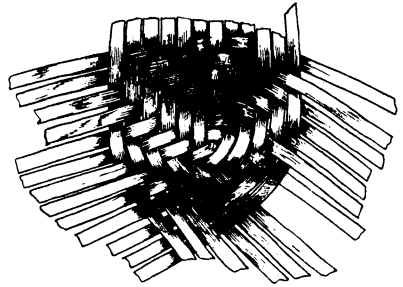


Plate 45. A corner, splints at right angles.

This method of weaving produces a herringbone design where the chevron patterns lie in parallel series as in Plate 38, where the splints are woven under three and over three.

The striking similarity of the twilled baskets woven by the Javanese, the Skarans of North Borneo, the Tirurays of southwestern Mindanao, the people of southern Panay, the Peruvians, the Chetimacha, Choctaw and Attakapan Indians of southern Louisiana, and the Arawak Indians of British Guiana leads to interesting speculation as to whether the reason lies in the fact that the use of similar materials determined similar designs or whether Malaysian types of basketry have swept across the

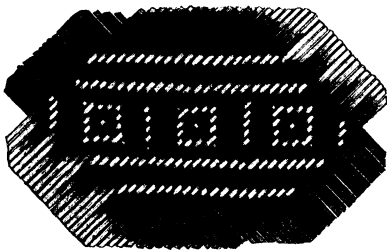


Plate 46. Decorative sawali weave (side).

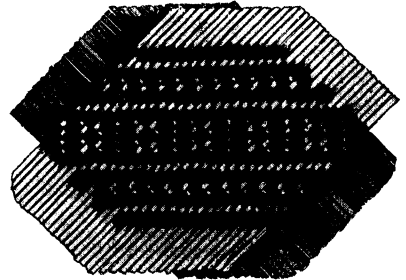


Plate 47. Decorative sawali weave (side).

Pacific during the unnumbered centuries that the numerous islands covering the South Pacific area have been peopled. In Plate 16, Report of National Museum, 1902, two Hopi Indian twilled baskets are shown that are almost identical with the "bakol" and "bilao" of the Tagalogs, both in shape and weave,

and the Chetimacha baskets shown in Plate 132 are so much like Tiruray work as to puzzle one quite well versed in types of Philippine baskets.

The simplest weave is shown in Plate 15, a form of winnowing basket that is used for displaying goods in small stores.

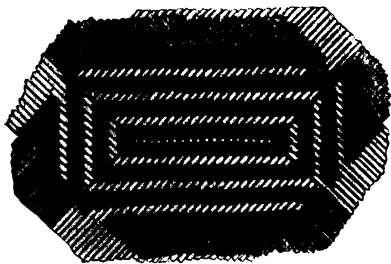


Plate 48. Bottom of basket with diagonal splints.

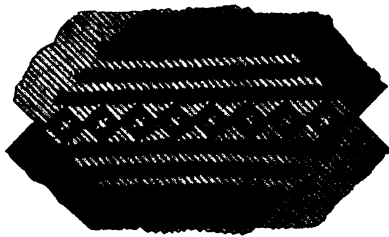


Plate 49. Decorative sawali weave (side).

The bottom of the basket shown in Plate 28 is also of the simplest type of mat weave. This little basket is made of palm leaves and can be made by first-grade pupils anywhere, material for it being everywhere available. The sides of the basket are of web weave, and the edge is a type of twisted weave. Plate 15 shows the effect of under two, over two, with the warp and weft laid at right angles and with the splints advanced one place each time. This winnowing basket may also be used for a display basket or for covering a storage or carrying basket.

Plate 14 (right) shows the effect of under three, over three with the warp and weft laid at right angles. This design is very common in the bamboo sawali used for ceilings and walls of the ordinary bamboo houses of the country. This is the so-called

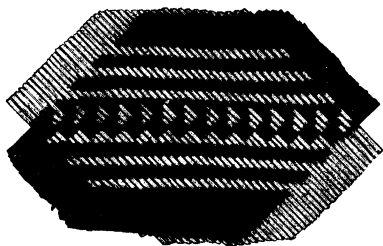


Plate 50. Decorative sawali weave (side).

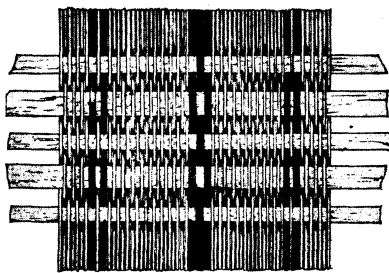


Plate 51. Visayan basket weave.

“herringbone” or “fishtail” design. This basket is a winnowing basket, but being deeper than that shown in Plate 15 is used for carrying purchases home from market, for covering storage baskets, and sometimes as a platter to hold cooked rice.

Plate 16 is the oval winnowing basket of the Ibanags. The

THE PHILIPPINE CRAFTSMAN

winnowing basket of the Tagalogs is round and is called "bilao." The Pampangans call the same round basket "igu."

All the above flat baskets consist principally of a bottom with low sides made up of the rim sewed on to the ends of the warp,

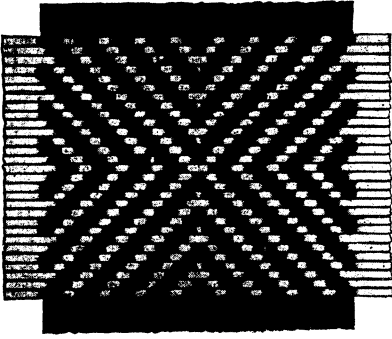


Plate 52. A design in sawali.

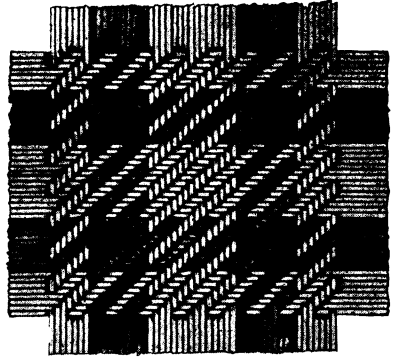


Plate 53. A design in sawali.

and weft turned up slightly to give a concave form to the basket. The mat in each case is woven by beginning at the center, and as there are no corners to turn it is immaterial as to the direction of the splints with relation to the axis of the basket.

In the deeper baskets, however, the matter of corners must be considered, and the direction of the splints with relation to the corners becomes of importance.

Since bamboo splints break easily when bent too abruptly it is necessary to arrange for the corners to be turned at an obtuse

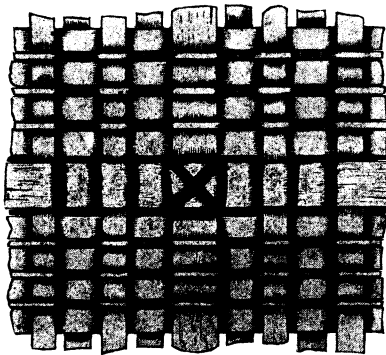


Plate 54. Bottom of basket, Visayan weave.

angle. This is done by laying the warp and weft so that they reach diagonally across the bottom of the basket, from corner to corner, in the case of a basket with a square or oblong bottom. (See Plate 48.)

A graduated course in sawali weaving with splints of two colors has been worked out in the Philippine Normal School under the direction of Mr. U. S. Andes. This course consists of 18 mats, 6 by 6 inches, as shown in Plates 32 to 34, inclusive. This work can be done by children of 8 or 9 years of age, and the mats can be made up into pin trays, wall pockets, cushions, fans, and other useful articles. This course should be of great help to teachers of first-grade pupils.

Plate 30 shows a mat that has been made into a pin tray.

Plates 22, 20, 18, 28b, 26, and 21 show a number of simple baskets that may be taught, in about the order named, in grades

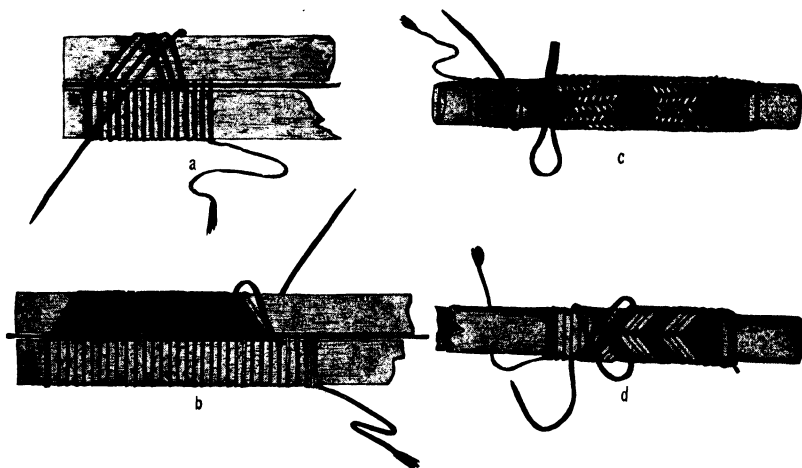


Plate 55. The "Pinisi" or rope rim.

- (a) A beginning of Pinisi weave; (b) Pinisi and centipede weave; (c) Pinisi weave, top;
(d) Pinisi weave, bottom.

two and three, according to the ability of the pupils to do the work.

COLORS.

The use of inharmonious colors should not be allowed in school work. A good combination of colors for the mats used in making the pin tray in either the sawali or mad weave is that of brown, black, or dark red with the natural color of the bamboo. Brown or black may be obtained by smoking the bamboo. (See pp. 27-28, *THE PHILIPPINE CRAFTSMAN*, July, 1912.) A brown or reddish brown may be obtained by the use of dyes made from the mangrove bark (*Ceriaps candolleana*), talisay (almond) bark (*Terminalia catappa*), or "baroc" bark (used in coloring tuba), or from sibucao chips (*Cæsalpinia sappan*).

Native methods of preparing these dyes can be obtained from the native weavers where the dyes above mentioned are used. The Bureau of Education is giving the matter of dyes attention in the vacation assemblies and division institutes.

The lessons learned by children regarding the dye properties of plants are as interesting as those learned regarding the textile properties of local growing plants.

Chemical dyes go with the age of machinery while vegetable dyes go naturally with the handwork of household industries. The pioneer women of America, who spun and wove their own clothes, obtained their dyes from plants, and each housewife possessed a wealth of information as to her physical environment that aided materially in the development of the natural resources of the country and led to prosperity and the age of machinery.

The Philippines, in a large part, are economically where the

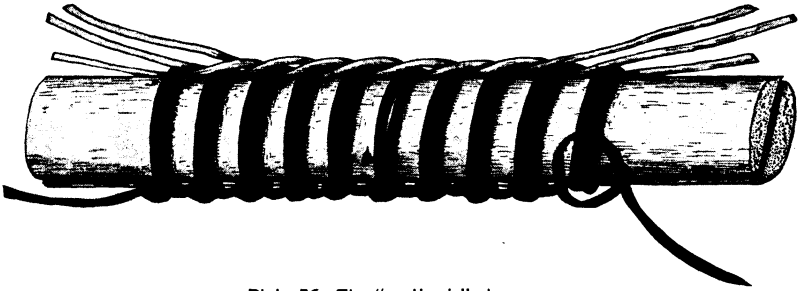


Plate 56. The "centipede" rim weave.

colonies were, and there are portions of the Philippines where the inhabitants are as far back in handwork as the aborigines of America at the discovery.

Since most of the American teachers who have charge of industrial work have been trained to think of work as accomplished by machinery and to obtain everything needed from the store, it is necessary to call attention to the fact that nature has quite a complete stock of materials for basketry and textiles, with dyes for the same, if the teacher will but call at the right department, and that time spent by pupils in exploring this large department store will be time spent in an interesting manner.

HANDLES AND BORDERS.

There are several typical weaves for borders of Philippine baskets and for the decorations of rims and handles.

The simplest type is that employed in binding the edge of the winnowing basket. This tie is called "labid" in the Bicol of Albay, and is shown in Plate 15.

A somewhat more intricate weave is shown in Plate 30.

The centipede weave ("lupihan," Tagalog; "inulahipan," Bicol) is an elaboration of the "labid." (See Plates 56, 57.)

The most elaborate weave for a border is that known as "pinisi" in the southern part of Iloilo Province, where it has been preserved, with several other interesting weaves, from prehistoric times. This weave is shown in Plate 55 and is really a sawali weave around a core instead of in the form of a mat.

A number of illustrations have been included in this article

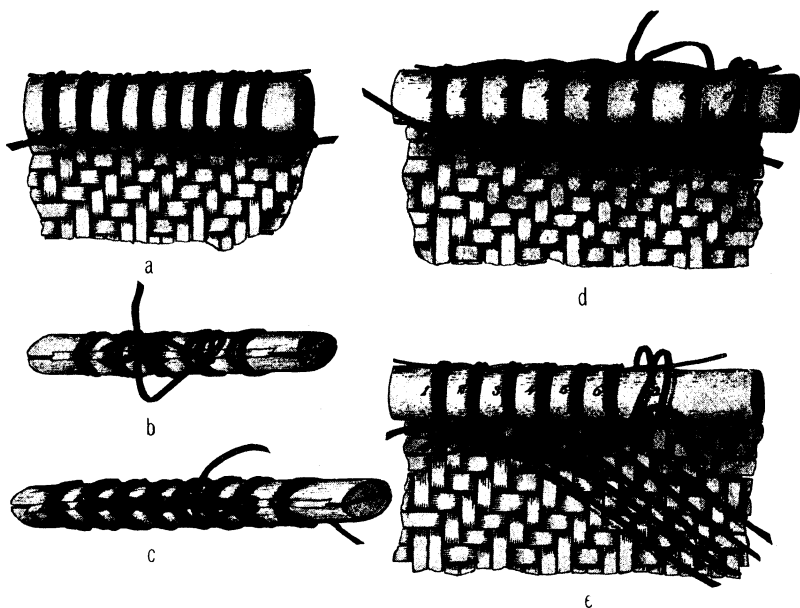


Plate 57. Variations of centipede weave.

(a) Side view; (b) top view, beginning; (c) top view, finished; (d) and (e) decorative variation of centipede weave.

for the benefit of teachers of basketry, to which no reference has been made in the text.

Much has been written of Indian basketry, its technic, art, and symbolism. As yet very little has been written of the basketry of the Philippines, and it is partly for the purpose of bringing this subject to the attention of teachers and students of basketry that this study is made.

With the completion of the three articles on Philippine basketry above mentioned it is believed that the field has been fairly well covered, at least in its broader phases, and that future articles on this subject may well deal with the technic or design of special types not hitherto noticed.

THE NINTH VACATION ASSEMBLY.

By ANDREW W. CAIN, Superintendent of the Philippine Normal School, and JAMES F. SCOLLER, Acting Superintendent, Philippine School of Arts and Trades.

A CHANGE OF PLAN.

THE ninth vacation assembly for Filipino teachers was held at the Philippine Normal School and the Philippine School of Arts and Trades from April 20 to May 22, 1914. This assembly was in many respects different from those of previous years.

1. The enrollment was limited to a certain number of teachers from each province. Heretofore the assembly has been open to any teacher whose application for enrollment was approved by the division superintendent. The result was that the attendance varied from 1,000 to 1,500 teachers from year to year. This number was too large, considering the number of instructors employed and the amount of space available for the assembly. During the last assembly the enrollment at the Philippine Normal School was only 522 teachers, while that at the Philippine School of Arts and Trades was 73.

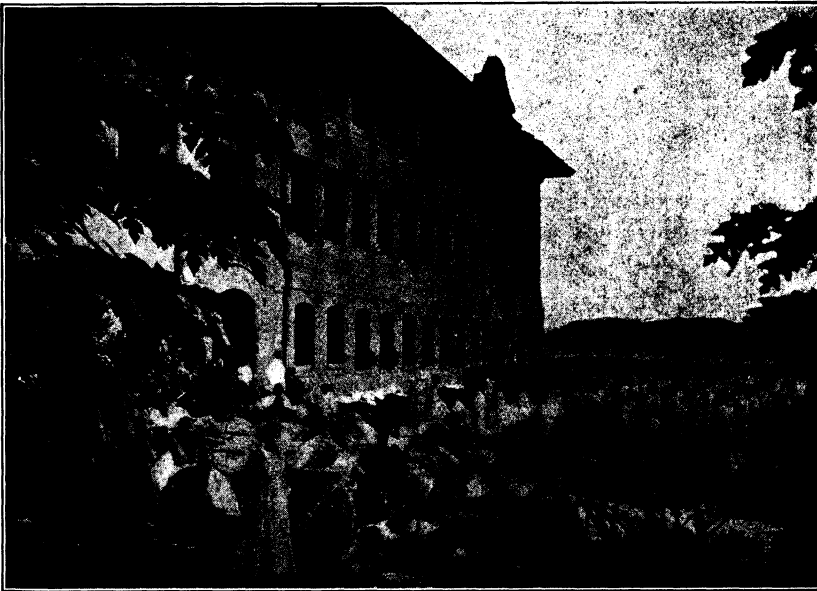
2. The teachers who attended the recent assembly were well selected and represented the best element in the several provinces. The previous preparation of these teachers made it unnecessary for them to spend time in learning the rudiments of the several subjects pursued. In most cases, those who attended the vacation assembly were expected to return to their respective provinces as instructors in the division normal institutes. This was an additional incentive for teachers to do their best while at the vacation assembly.

3. The vacation assembly has become a part of a general plan of institute instruction which embraces all sections of the Islands. Every course taught in the assembly is previously outlined in detail by some of the most capable teachers in the Bureau of Education. Then such of these courses as are adapted to the several provinces are taught in the provincial normal institutes. This is probably the surest and quickest way of placing new designs, standards, plans, and ideas in the possession of the teachers throughout the Islands. Within three months of the time a course is begun in the vacation assembly, practically every teacher in the service has an opportunity to familiarize himself with the work and introduce the course into his own school.

4. The instruction given in the last vacation assembly was of the highest grade that it was possible to obtain. The specialists attached to the General Office of the Bureau of Education were members of the faculty. Besides, industrial supervisors, athletic trainers and other special teachers in various parts of the Islands were assigned to the vacation assembly as instructors.

COURSES OFFERED AT THE PHILIPPINE NORMAL SCHOOL.

The plan of the assembly provided for three main divisions of the work—athletics, professional studies, and industrial instruction.



Athletics and sports on the campus.

ATHLETICS.

The class instruction in athletics consisted of lectures and the preparing of outlines, diagrams, and notes. The outdoor exercises embraced the standard school games, such as indoor baseball and volley ball, together with calisthenics, relays, and group games of various kinds.

A feature of the athletic work was the course in colloquial and playground English. Classes were instructed as to the appropriate phrases to use on all occasions in connection with the games. Notebooks were carefully compiled, giving the entire playground vocabulary. In order to make sure that the different

phrases were understood and could be used correctly, the instructor and classes spent a part of each period on the campus playing games and shouting to each other in the choice colloquialisms of the diamond and the playground.

PROFESSIONAL COURSES.

Two courses in music were given, one of which was especially planned for primary teachers, and the other for intermediate teachers and supervisors.

The course in intermediate drawing was intended to cover the greatest possible amount of subject matter consistent with thorough work. Special attention was given to methods of teaching drawing.

The course in good manners and right conduct was one of the most enjoyable courses in the assembly. The instructor did much to enliven the work by his series of interesting talks upon the great works of art.

The work in methods of teaching was necessarily brief as an attempt was made to set forth the general principles applying to good teaching in all the subjects and grades of the primary course.

It is probable that no professional subject is of greater value to the primary teacher than is phonics. Correct sound values of letters and the proper blending of the elementary sounds lie at the very base of accurate pronunciation. The work in phonics did much toward putting the teachers in possession of the key to pronunciation.

The teachers were given a brief and concise outline of the principles of school management. This outline was discussed by the instructor and the teachers in order that it might be understood and its provisions properly applied.

INDUSTRIAL COURSES.

All of the teachers in the soft-fiber course began with the exercises of the first grade. Different rates of progress were made by the several teachers, but the minimum amount of work completed was 17 exercises and 5 articles.

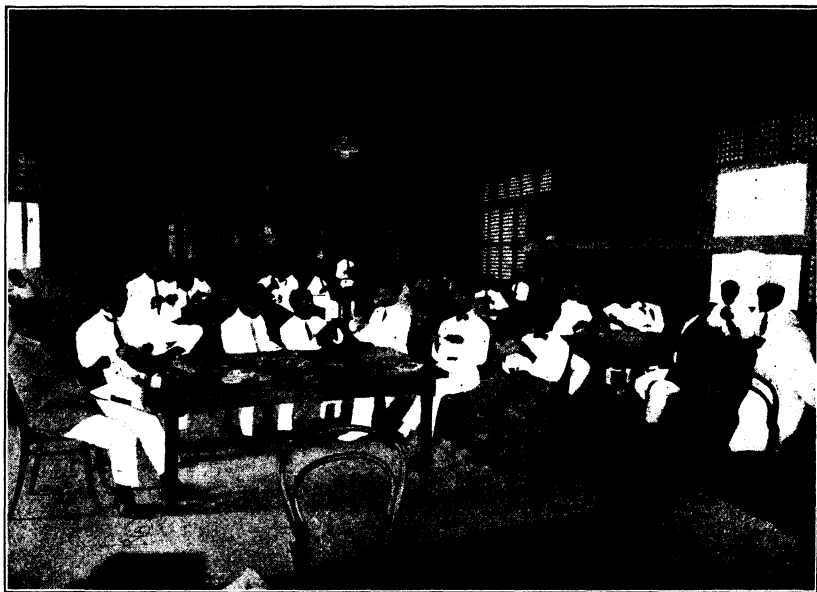
The work in mat weaving did not prove so fascinating to the teachers as other weaves. The reasons probably being the lack of variety in the operations necessary for the weaving of a large mat, and the inconvenience of weaving a large article on a desk or table as must be done in school.

All teachers in the hat-weaving course finished at least a small buri hat and a large buri hat of double weave. In addition to these, the more rapid workers completed a sabutan hat.

The work done in the hard-fiber course was very satisfactory.

Every teacher completed at least 24 exercises and 1 article, while some teachers made 2 additional articles.

There were several courses in basketry. The lunch basket of the Polangui type probably required more work than any other article in these courses. Those who made Polangui workbaskets finished these and a bamboo or buntal basket during the session. The common bamboo basket was probably the most useful type produced during the assembly. The teacher in this course was required to complete a regular set of preliminary exercises and make at least four baskets. Other articles produced in the



Teachers making baskets.

basketry department were buntal collar boxes, trinket baskets, melon baskets, abaca workbaskets, and Zambales reinforced bamboo baskets.

There was a large enrollment in the macramé classes. The beginners' course in this work consisted of 35 sample weaves, all of which were completed by each member of the class. The teachers of the advanced class devoted their time largely to the weaving of abaca slippers. The class was provided with forms for the shapes of soles and toes in all of the commercial sizes.

The course in chemical and vegetable dyes consisted of lectures, notebook work, and practice in dyeing. Various native materials were used with the dyes best adapted to each.

The work in bamboo and rattan furniture was planned with a view to providing the home with the most necessary household articles. The teachers in this course made chairs, stools, wash-stands, and other articles necessary for the comfort of the family.

The course in design was begun with the elementary principles of this subject. As soon as the teacher had acquired the cardinal principles he was permitted to exercise his own originality and taste in forming new combinations. An effort was made to discover and develop designs that are Philippine in characteristics.

There was a limited enrollment in the loom-weaving course, but all of the teachers completed the work as outlined and took home with them samples of their work. A bamboo loom was installed and used to demonstrate weaving in fancy designs. The designs were planned by the instructor for this loom and the teachers were able to execute them. A miniature type of loom which can be carried about in one hand was in operation. After the teachers were instructed in the use of these looms, the following lessons were given: Plain weaving and selvedging, stripe weaving and color arrangement, unit weaving from old Philippine designs, the weaving of raffia cloth, the designing of new stencils from units found in previous editions of *THE PHILIPPINE CRAFTSMAN*. A few teachers enrolled for the course in matting, weaving balangot, and ticug mats on the upright looms made at the Philippine Normal School.

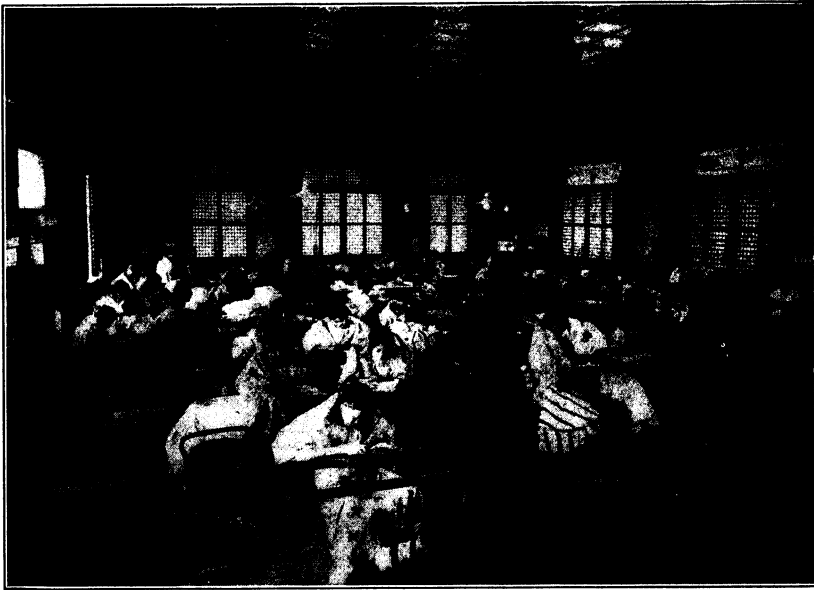
There were elementary and advanced courses in lace making, embroidery, and Irish crochet. Only those who had previously made considerable progress in these subjects were permitted to enroll for the advanced courses. At least one and a half hours daily were devoted to each of these subjects.

The courses in plain sewing, garment making, cooking, and housekeeping were as popular as ever. It was difficult to provide sufficient accommodations for those who desired to take this work. The course in plain sewing consisted in the making of paper dolls and clothes, basting stitch, running stitch, back stitch, hemming, buttonholes and buttons, doll's one-piece dress, romper suit, and two samplers. The advanced course in sewing was devoted to the drafting of patterns and the making of the ordinary garments worn by children and women.

The course in cooking and housekeeping was intended for women who are teaching this subject in the primary schools. The following points were emphasized: The use and care of equipment, the preparing of recipes, corn as a food, the preparation of various native foods, food for the sick, visits to the market, proper method of dusting, the care of floors, the washing

of kitchen linen and clothes, the cleaning of lamps, serving meals, washing dishes, eradication of insect pests, accidents, first aid to the injured, and the keeping of notebooks.

Courses were offered in primary gardening, intermediate gardening, farming, and school-grounds improvements. These courses were previously outlined and printed in notebooks which were placed in the hands of teachers. The class instruction consisted in expanding and developing the outlines. The larger part of the instruction in these courses was derived from the actual field work carried on from day to day. Completed notes



The department of embroidery.

were compiled by the teachers in each of these classes and it should be comparatively easy to reproduce these courses in any provincial institute or school.

COURSES OFFERED AT THE PHILIPPINE SCHOOL OF ARTS AND TRADES.

The following courses were given, each course consisting of 25 lessons. In all courses teachers were required to keep complete notebooks showing the work covered.

ESTIMATING APPLIED TO WOODWORK.

"Supplementary Problems for Trade Schools" was used as a text. A few typical problems under each section were selected for explanation. Estimates were prepared from drawings in

Circular 97 (Elementary Woodwork) and Bulletin 32 (Drawing Manual). Accurate information as to the lumber and hardware used in each exercise, as well as summary of the supplies necessary for a class of 10 pupils in intermediate shopwork, were furnished.

SHOP ENGLISH.

"Goss' Bench Work in Wood" was prescribed as a text. Special attention was placed on the names of tools and other shop equipment. Sketches, drawings, and Bureau of Education bulletins were freely used in this connection.



A class in bamboo and rattan furniture.

LECTURES ON FURNITURE CONSTRUCTION.

Volumes I and II of *THE PHILIPPINE CRAFTSMAN*, "Furniture Making" by Rudd, and Bureau of Education standard designs were used throughout this course. The complete course gave instruction in all the details of furniture construction from the storing and seasoning of lumber to the polishing of the completed article. A table showing the correct dimensions of different kinds of furniture was furnished to each teacher.

CERAMICS.

The lessons in this course were so planned as to train teachers to teach elementary pottery in the public schools. The lessons were intended to cover a year's work. Instruction was given in

the preparation of clay, modeling of designs, use of the potter's wheel, and the construction and firing of a small kiln.

ELEMENTARY WOODWORK.

Circular 97 (Elementary Woodwork) was used as a text and instruction was given in the different exercises. Teachers who showed thorough preparation in the exercise work were given a course in the filing and sharpening of saws and tools.

ADVANCED WOODWORK.

The work done in this course was largely of commercial nature. Teachers were required to construct some article of furniture, following exactly a free-hand working drawing. Each teacher was required to operate, under the supervision of the instructor, the different wood machines ordinarily used in provincial trade schools.

PRIMARY INDUSTRIAL DRAWING.

Special attention was given in this course to the prescribed courses in drawing and to the reading of standard elementary drawings.

INTERMEDIATE INDUSTRIAL DRAWING.

The work in this course was intended for teachers of intermediate grades and covered Parts I and II and the appendix of Bureau of Education Bulletin No. 32. Correlated with this work, lectures were given on furniture design.

ADVANCED MECHANICAL DRAWING.

Isometric drawing and cabinet projection were reviewed and work in advance of Bulletin 32 was taken up. Perspective and practical projection received considerable attention.

FREE-HAND DRAWING AND DECORATIVE DESIGN.

In addition to a review of Part III, Bulletin No. 32, particular attention was given to rendering in pencil, charcoal, and pen and ink, with special reference to perspective drawing.

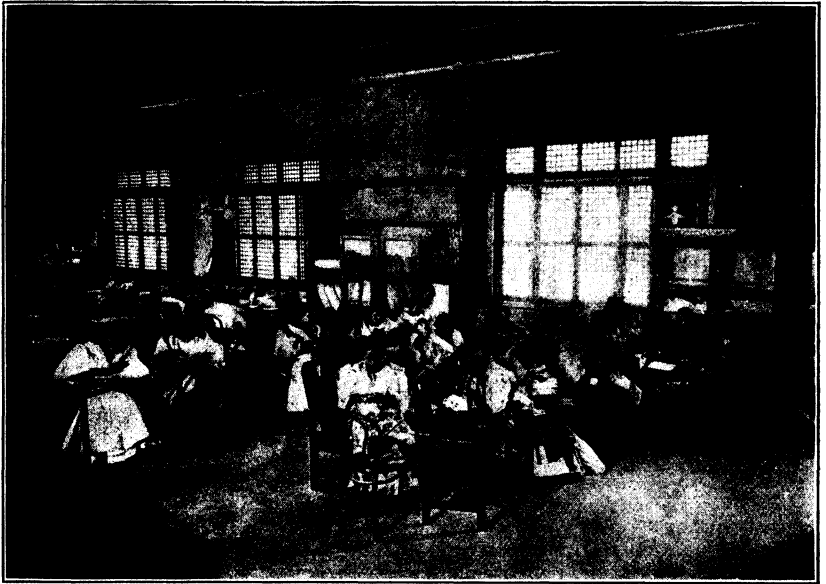
FINISHING AND PAINTING.

The use of wax and shellac, the application of stains, and the mixing and application of paint were thoroughly demonstrated. Teachers who showed unusual proficiency were permitted to finish articles for exhibit and sale.

SPECIAL FEATURES OF THE ASSEMBLY.

VISITS TO PLACES OF INTEREST.

One of the most attractive and valuable features of the assembly was the series of visits and trips of inspection to places of interest in and about Manila. Each Saturday the classes that were doing special work were escorted by the instructor to some enterprise of like character. For example, the classes in bamboo furniture saw how this is done in Bilibid; the classes in house-keeping visited a sanitary exhibit of the Bureau of Health; and



Irish crochet in the vacation assembly.

the classes in gardening studied the parking of Cementerio del Norte. Those who were not included in the special class visits joined in a general excursion to some large factory, printing plant, aquarium, or museum. All of these excursions were under the immediate supervision of members of the faculty who endeavored to make every trip an occasion of pleasure and profit for the visiting teachers.

ATHLETIC CONTESTS.

The athletic contests that were waged between contending delegations were a source of great interest and enthusiasm. Girls' indoor baseball attracted the greatest attention. Two

contests were conducted between picked teams from the Bicol and the Visayans and one between the Bicol and the Tagalogs. Much amusement was created by the two games of indoor baseball played between the faculties of the Normal and Trade schools.

SHORT ADDRESSES AND POPULAR LECTURES.

The program of the assembly included a series of short addresses and popular lectures by persons of distinction living in and about Manila.

Dr. James A. Robertson, Librarian of the Philippine Library, spoke upon the subject, Books and the Teacher.

Mr. Frank L. Strong gave a résumé of human progress, showing how man has gained his physical and intellectual supremacy by the use of implements.

Dr. N. M. Saleeby gave an account of the early history and life of the Filipinos.

Father José Algue, Director of the Weather Bureau, spoke upon clouds in the Philippines. His lecture was illustrated by diagrams, charts, and other simple devices.

Mr. H. T. Edwards, Director of the Bureau of Agriculture, spoke upon agricultural coöperation. He showed the great work that has been accomplished by coöperation in some of the European countries.

Mr. Gregorio Nieva, secretary to the Speaker of the Philippine Assembly, gave an outline of the history and workings of the Assembly.

Mr. Charles H. Storms, of the Bureau of Education, gave two illustrated lectures, one on bamboo products and the other on athletics and modern school buildings.

The teachers themselves gave two public programs in the auditorium. One of these was a debate upon the subject "*Resolved*, That the Philippine Legislature should enact a law compelling parents to send their children to school at least 1,000 days." The other was a general program consisting of declamations, musical selections, and miscellaneous numbers.

THE CLOSE OF THE ASSEMBLY.

At the close of the assembly the work was graded promptly, the articles made by teachers were delivered to them, salaries were paid, transportation requests issued, and everything possible was done to send the teachers away satisfied.

CONFERENCES FOR INDUSTRIAL TEACHERS, BAGUIO, MAY, 1914.

By LEROY R. SAWYER, Chief, Division of Industrial Instruction and Publications.

THE industrial system in vogue in the Philippines has two distinct points of difference from courses or types of industrial instruction given in schools of other countries: First, it forms an integral part of the training which all primary and intermediate pupils are required to take; and, secondly, it has a direct bearing upon the promotion of household industries in the Filipino people as well as in preparing pupils in intermediate grades for gainful occupations in different vocations. With a system so widespread and of such vital importance to the people both in an economic and social sense it is little wonder that a week should be spent yearly by teachers at the Vacation Assembly, Baguio, for the discussion of matters relating to the further extension and standardization of this feature of school work. Throughout the year, teachers are largely brought in contact with the more exacting details of the application of the system to meet the needs of different pupils and grades and are confronted with the solution of its financial aspects, but in the cool mountain climate of Baguio where one rubs elbows with his fellow associates and meets them for friendly conference in an attractive social hall, the broader phases of the work stand out in clearer relief and conclusions are reached which bring nearer a satisfactory outcome of the purpose of our plan of industrial instruction.

A tentative list of topics for discussion was published in the Teachers Assembly News of May 3. The conferences began the following day and extended over a period of five days, each of an hour and a half duration. The Assistant Director of Education, Mr. C. H. Magee, who has been largely instrumental in developing the school industrial program and who has been closely associated with it from its small beginnings, presided at each session.

A considerable part of the time during the first two days was devoted by the Assistant Director to explaining and outlining the activities of the Bureau of Education, both from the General Office as well as from the field standpoint,—this for the benefit of the many new teachers who were present. The industrial organization was gone into, the position of the

General Office explained, the courses of study briefly considered, and the Filipino teaching force and methods of supervision touched upon. Other important comment made by him bore upon the subjects of concentration and specialization in connection with industrial work, some of the achievements of the Bureau of Education, the School of Household Industries, dyes, trade schools and shops, Insular and local exhibits, agricultural instruction, Philippine designs, and the purpose of the industrial conferences. This review of and outlook upon the educational field at large brought a full realization of its tremendous importance and wide significance and gave a clear-cut outline of the structure upon which is being raised the industrial efficiency of the Filipino youth.

At the beginning of the conferences, a committee on resolutions was appointed, consisting of a division superintendent, a trade-school principal, supervising teachers, and teachers of agriculture, drawing, domestic science, and high school and academic subjects, nearly all of whom are directly concerned with industrial instruction. It was the duty of this committee to pick up points of importance as they arose during the discussion and to make such other recommendations as were brought to its consideration and accepted by it.

Among other matters which provoked discussion was the present pensionado system. The difficulty seems to be one of assigning the pensionado to the line of work for which he has been trained,—obviously not a hard situation to remedy. Many teachers expressed themselves with regard to intermediate drawing, both free-hand and mechanical; in general, it was felt that the course in the former came nearer to meeting the needs of the field than the latter. The work done at division normal institutes and the adjustment of industrial work in the daily program gave occasion to some exchange of opinion and views. The matter of design as related to the different phases of industrial work was also touched upon quite fully. The standardization of the various intermediate courses aroused no little interest; the majority of those present were in favor of requiring strict adherence to standards now in force fixed by the Bureau. The growth and existence of the "subscription" intermediate school were explained by teachers from various divisions. The work of the trade school, particularly the commercial side of it, stirred up considerable discussion. Dyes and sewing materials now in use were gone into in detail. The position of the General Office with respect to the various lines of loom work was outlined and expressions of opinion offered as to the rate of remuneration

received by adult household workers in loom weaving in different parts of the Islands. Lastly, the extension of household industries in various provinces was explained by different teachers.

On a number of the preceding points definite recommendations were contained in the report of the committee on resolutions. In addition, it advocated a more liberal travel allowance for division industrial supervisors, blueprints from articles which have actually been constructed, continued emphasis on school and home gardening, continuance of local exhibits, the revision of the present primary drawing course and the establishment of certain normal courses in the subject with a view to the preparation of trained teachers, the extension of the use of English with relation to industrial work and the giving of oral examinations in this connection. It also recognized the value of the information disseminated regarding dyes, the importance of Bulletin 53 in the promotion of adequate instruction in plain sewing, and re-emphasized the necessity for a program of standardization of all intermediate schools. On the other hand, the committee questioned the wisdom of placing so much stress on special agricultural campaigns on account of their interference with regular school work, requested reconsideration of any action looking toward limiting work in advanced lace making to a few provinces, and favored opening farm schools only in agricultural communities on a coöperative basis. Recommendations were also made with a view to slight changes in the municipal accounting system, the extension of the course for teaching so as to include two years of secondary work, the more effective adaptation of primary shopwork in order to meet local needs, and a more definite outline for work in the course in housekeeping and household arts. A glance at the preceding topics indicates that the committee devoted its attention to a fairly wide range of the numerous activities and interests with which the Bureau of Education is vitally concerned.

One of the most agreeable features of the conferences was a short talk by the Vice-Governor-General of the Philippines, the Honorable Henderson B. Martin. Since his arrival in these Islands, Mr. Martin has lost no opportunity to acquaint himself with existing conditions and to study those problems connected with the welfare of the Filipino people, and his utterances on a number of occasions have been rich with suggestion and to the point. Here again he voiced the opinion that the development of the industrial and agricultural resources of the Philippines was of prime importance. He expressed his sympathy

with the present program of the Bureau and particularly with the extension of industrial training. The substance of one of his many pointed remarks was as follows:

The very first thing that people want is some wealth—some surplus wealth. That is the first thing these Islands need, and a man or a woman who can increase the wealth in these Islands is engaged in the greatest work that can be done in them. If, when you leave these Islands, you can find men and women who are able easily to support themselves, who are able to support themselves without working all the time, and who are ambitious to do something more in building up these Islands, I think that you will have justified the confidence the people have had in you and that you will have done something of real worth in the world.

No one could doubt the satisfaction of the teaching force present on receiving assurance from Mr. Martin, the ranking head of the educational department in the Philippines, that school work in the future was destined to go on along the same lines it has taken during recent years and that no radical change was in store.

School work in the Philippines is arduous, beset with difficulties, and needful of the devoted efforts of efficient teachers; but its possibilities, broad vistas of work accomplished, and the loyal spirit of the teaching corps loom uppermost when teachers come together among the pines of Baguio. The work each year shows a healthy growth and a genuine appreciation of its benefits on the part of the Filipino people. The fraternal relations established at Teachers Camp among teachers and the Directors serve to keep our educational bark pointed in the right direction.

ERROR IN MARCH NUMBER.

By an error in legending, a cut appeared on page 689 of the March number of Volume II of *THE PHILIPPINE CRAFTSMAN*, crediting a "Bedroom set" exhibited at the industrial exposition of the Bureau of Education at the Second Philippine Exposition, to the Trade School of Batangas. This set is the product of the Laguna Trade School.

THE NEW ACCOUNTING SYSTEM FOR PROVINCIAL TRADE SCHOOLS.

By BRUCE INGERSOLL, Inspector of Trade Schools and School Shops.

SHOP teachers in the Philippines have noted a very marked difference in the manner in which trade courses in the Philippines are operated as compared with the manual training or shop courses given in most of the American and European schools. From 1901 to 1907 the trade schools here gave shop courses very similar to those given in other countries, but with the introduction of "commercial work" in 1907 the shops began to use a large amount of supplies and turned out furniture in large quantities as ordered by the Government and private firms. Previous to 1907 but little besides exercises and models were produced in the school shops. Then no accounting system in the trade schools was necessary, and as supplies were issued they were dropped from the account of the provincial treasurer as consumed. Provincial trade schools are now operated with provincial funds.

The production of salable articles in large quantities made necessary a certain amount of "cost-keeping" records somewhat similar to those used in up-to-date factories. In 1910 the Bureau of Education had sufficiently systematized the commercial work of the trade schools so that it became possible for the Government to issue a uniform accounting system, giving the duties of the various Government officials concerned in the furnishing of supplies and the disposal of fabricated articles. The schools in all provinces were thus required to operate on the same basis.

In transmitting the original trade school accounting system (Circular No. 190, Bureau of Audits) to the various school divisions of the Islands, the Director of Education stated that "Its use protects the teachers and also instills business ideas into the minds of the pupils, by requiring them to account accurately for labor and material entering into the composition of an article, and by allowing them to receive compensation for their labor under conditions similar to those of the business world."

On account of the varying conditions in different provinces and the fact that the commercial work was continually showing new phases of development, the original accounting system was prepared with sufficient flexibility to allow the minor details to

be carried on without interfering with the proper conduct of the school. During the past four years the commercial work has become more uniform in all the trade schools with a resulting harmony in the method of handling accounts. This has made possible the preparation of the new accounting circular with its accurate instructions concerning the great variety of details that have arisen during the past seven years of commercial work in the schools.

As stated in the new circular, the main purposes of the records kept by the principal of the trade school are:

1. To enable him to manage his business intelligently and fulfill his responsibilities with full protection to himself as well as to the Government.
2. To enable the treasurer to exhibit in his accounts the financial condition of the trade school at all times and at the end of each year show the results obtained from the year's work.

The main differences between the old accounting system and the new one consist in the adoption of a special set of accounts for the trade schools in connection with the provincial treasurer's accounts, and certain changes in the old forms to make them agree with the new system. The headings for the various accounts are as follows:

- Bc, Operating capital.
- Bc1, Loss and gain.
- Bc2, Income.
- Bc3, Operating expense.
- Bc4, Industrial products.
- Bc5, Supplies.

Another change which may seem somewhat radical is the regulation for the payment of labor by time. In commenting on this, the Director of Education says that "It should be noted that 'contract' or piecework is allowed as soon as the proper cost of labor and materials has been determined. Fundamentally, there are only two ways of making payment for services rendered: The one by daily wage and the other by the piece. Under the former plan a person is paid according to the time occupied, regardless of the quality of the work he does in that time. Under the piece rate a person is paid according to the quality of the work he does, regardless of the time he spends in doing it. The latter plan recognizes individuality and possesses superior educational merit. It cultivates individual responsibility and individual pride in performance; it promotes rapidity of execution and thereby gives the skill that is essential to success. For the above reasons, it is considered necessary to continue piecework in all trade schools and school shops."

Another important difference is the substitution of book records instead of the card and loose-leaf records formerly used. Nine different styles of books are used, and in addition to these there are three different styles of "pads" and a set of tags. The following names of the various forms used are self explanatory in most cases:

Special trade-school forms:

No. 153 (A)—Job record.

No. 154 (A)—Daily record of material and supplies issued and sold.

No. 155 (A)—Summary of supplies issued and sold.

No. 156 (A)—Time book and payroll.

No. 157 (A)—Time card.

No. 158 (A)—Record of jobs completed.

No. 159 (A)—Record of sales and transfers.

No. 160 (A)—Invoice.

No. 161 (A)—Request for work (private orders).

No. 162 (A)—Statement of manufactured articles and completed jobs remaining on hand.

No. 163 (A)—Letter of transmittal and invoice of funds.

Regular provincial forms:

No. 122 (A)—Issue voucher.

No. 118 (A)—Supplies ledger (card).

No. 27 (A)—Supplies identification tag.

The new circular is known as Provincial Division Circular No. 300 of the Bureau of Audits. The forms are printed at the Government Bureau of Printing, Manila.

THE NATIONAL SOCIETY FOR THE PROMOTION OF INDUSTRIAL EDUCATION.

During the past year this society has been engaged in a large number of investigations, studies, and enterprises looking to the promotion of industrial instruction. Probably the most far-reaching work in which it has been engaged is the assistance it has rendered in writing the legislation for various States—notably in Indiana, New York, Pennsylvania, New Jersey, and Connecticut. It is still engaged in this work for three other States. The legislation enacted includes laws creating a system of State-aided vocational education and amendments to existing laws.

The society has also assisted in making surveys in various cities preparatory to the introduction or extension of industrial education—especially in New York, Philadelphia, Buffalo, Rochester, Cleveland, Cincinnati, Washington, Springfield, and Grand

Rapids. Surveys are also contemplated in Sioux City, Iowa; Topeka, Kansas; St. Louis, Missouri; and Richmond, Virginia.

The society has also been interested in inaugurating, in co-operation with Pratt Institute, an experiment in training teachers for service in industrial and trade schools. It is recognized that teachers for these schools must be largely taken from the trades. It is also certain that men in the trades will not, to any extent leave their trade for two or three years' training in the normal school or college. Neither is the normal school, as it is at present organized and administered, well qualified to give such training. This being the case, some scheme must be found whereby men can be trained to become teachers while they are still working at their trade. Several such experiments are now under way—at Pratt Institute, Albany Normal College, Buffalo Normal School, the University of Wisconsin, and at one or two other places.

Other activities of the society are: Coöperation with the Bureau of Education at Washington in the publication of material on vocational education; coöperation with the State authorities of New York, Indiana, New Jersey, and Pennsylvania in the preparation of bulletins giving the rules, regulations, and suggestions by the State departments of education for carrying out new legislation, and the holding of conferences and conventions for the promotion of industrial education.

At present our system of education is arranged as a continuous pathway from the lowest grade to the highest without even convenient stopping places for those who must get off. In consequence, many are tumbled off most unceremoniously with absolutely no equipment to help them make the necessary adjustments with practical life.

The danger is that schools may be planned that start nowhere in particular and will reach nowhere in particular. They must always rest on a solid foundation, at the level of the human beings that are ready to be trained. They must lead to some definite getting-off place.—Arthur L. Williston, in the Proceedings of the N. E. A. for 1913.

TECHNICAL BULLETINS.

IT is believed that pertinent notes affecting industrial work should reach the field more generally, directly, and quickly than they have heretofore. In order to effect this a file of technical bulletins has been started.

The copies of bulletins allotted to the office of the division superintendent, to high and intermediate schools, and to supervising teachers should be kept on file subject to inspection.

[Technical Bulletin No. 1.]

LAUNDERING EMBROIDERIES.

The salability of embroideries largely depends upon the manner in which they are laundered and put up. They should always be washed clean, ironed smooth, and made into attractive packages.

Under no circumstances should alum and lime be used in washing embroideries. They destroy the fiber composing the material, and as a result the cloth soon falls to pieces.

To wash embroidery properly only soap and hot water are necessary. Ivory soap is recommended. Wash thoroughly, after which rinse in cold water and immediately place in the sun to dry.

[Technical Bulletin No. 2.]

NOTES ON THE USE OF APPROVED MINERAL DYES.

1. For provincial work the ordinary petroleum can holding approximately 5 gallons is a satisfactory dye-bath container. Basins holding 4 liters or less should never be used.

2. Each central school should be equipped with at least 12 petroleum cans, 6 of these to be used for holding dye baths and the remaining 6 for wash cans. Of the 6 tins for dye baths each should be labeled with the name of the color which is to be kept therein, thus eliminating all possibilities of having the dye bath toned by the coloring matter remaining in the can from previous dyeings.

3. The water must be boiling when the dye stuff is placed in it and should be stirred continually until the dye is completely dissolved.

4. The use of soft water (rain water) is recommended; however, hard water will give the desired result after a small quantity of common salt has been dissolved in it.

5. Before materials are dyed they should first be soaked, until thoroughly saturated, in water in which soda crystals or washing

soda has been dissolved. Before placing in the bath shake fibers loose and free, thus permitting the dye to penetrate the material thoroughly.

6. Too much material should not be placed in the bath at one time, else uneven coloring may result. Very strong baths do not give rich colors.

7. Materials while boiling should be completely covered with the bath. If necessary, they should be turned over and stirred from time to time in order that the bath may come in contact with all fibers.

8. The same dye bath may be used repeatedly, but should not be kept over two days. After the first quantity of materials has been dyed, it becomes necessary to add a small portion of dye in order to renew the strength of the bath.

9. Unevenly cleaned material does not dye uniformly.

10. Thorough washing of dyed materials in clear cold and, if possible, running water is as important as the dye bath itself. After being washed until no color appears in the fresh water, dyed materials should be dried in the shade. Drying in the sun will ruin the even color secured.

11. The formulæ given for abaca are as follows: Viegelmann dyes for abaca, use $1\frac{1}{2}$ to $2\frac{1}{2}$ tablespoonfuls of dye to 5 gallons of water for 5 kilos of material. Behn-Meyer dye is much stronger, only $\frac{1}{2}$ of the amount of dye above stated being necessary for the same amount of material and water.

The density of colors may be regulated by varying the amount of dye used or by the boiling period. For buntal and raffia, the quantity of Viegelmann dye used should be greater, practically double that used for abaca. For the Behn-Meyer dye only the amount used for abaca is necessary.

12. Enough materials of one color should be dyed at one time to complete the industrial articles for which such materials are desired. It is difficult to mix two dye baths at different times and produce exactly the same colors.

13. For further information relative to the dyeing of materials, see THE PHILIPPINE CRAFTSMAN, Volume II, No. 6, page 434. The use of the color chart appearing on page 162, Volume I, No. 3, of THE PHILIPPINE CRAFTSMAN, will give material aid in determining the exact tones of colors desired.

[Technical Bulletin No. 3.]

BUNTAL FIBER.

This Office has from time to time paid considerable attention to the extraction of buntal fiber from the petiole of the buri palm.

This matter was first taken up in Bureau of Education Bulletin No. 33, pages 31 to 35 and Plates XIII and XIV.



A palm that has been "trained" by having its petioles removed for three or four years; it is now ready to yield buntal.

At that time the production of buntal fiber was confined to the district around Sariaya, Tayabas Province, but since then it has spread to other districts.

As explained in Bulletin No. 33, the question of obtaining buntal is not only one of the manner of extraction, but is concerned primarily with the selection of suitable petioles.



A good buntal yielding palm. Removing the leaf from the petiole.

The extraction of fiber is simple, but dexterity results only from practice.

The spread of buntal production seems, therefore, to depend

upon the spread of knowledge regarding the selection of palms and petioles which yield up the fiber readily. As noted on page



Removing the thorns from the buri petiole.

32 of the bulletin, this matter seems to depend upon the condition of the palm.

From quite a few experiments and observations the division superintendent of schools for Tayabas, and also the supervising



Determining the point from which the bark shall be removed.

teacher stationed at Santa Cruz, Tayabas, have concluded that palms in which there is a considerable flow of sap are the ones

from whose petioles the fiber is most easily obtained. Such palms would be found generally in a damp climate and, in any



Removing the bark from the nose mark toward the butt of the petiole. The bark is not removed from the inner side.

given locality, near river banks and in depressions where water is abundant.

Observations in the old buntal extracting district and experiments in other regions indicate also that, if cuttings of petioles



Cutting off the butt from the petiole.

be made continuously after the palm reaches the age of 1 year, the petioles will always give up their fiber easily. The people of Sariaya say that such a palm is "trained." The fact is that

by keeping many of the petioles and leaves cut off, the whole growing strength of the palm is concentrated into the remaining



Removing the end of the petiole.

leaves and petioles. This principle is well known in tree pruning. This insures more than the normal amount of sap in each growing petiole, and makes the buntal fiber more easily extracted

when the petiole is cut. Petioles suitable for extracting can be obtained from palms about 3 years old.

The production of buntal has just been introduced into the



Removing the pulp so that the ends of the fibers are exposed and can be grasped.

Island of Marinduque and the method is, therefore, of interest to the field in general. It is given as follows:

Certain pupils were assigned to obtain the petioles and to

extract the fiber under the supervision of a teacher. The pupils and teachers originally assigned kept to the work during the whole year.



Removing the fibers, a small bunch at a time, by pulling them out from the petiole which is fastened by a strip of its own bark to a strong post. When no more fiber can be extracted, the decorticated end of the petiole is incised about 4 inches from the end and so as to cut the fiber. When this 4-inch piece is broken off, another bunch of fiber is left free to grasp. This can be accomplished three times. The last two times shorter fibers are secured.

Many different buri palms were tried, and from those which gave the best results in the beginning petioles were continually harvested. The number of palms finally selected for the experi-

ment was determined by the number of pupils assigned. Enough were selected so that good petioles could be obtained without



When all the fiber is extracted from the petiole, it is immediately wound into a bundle and placed in white vinegar water to cure.

trimming the palms so closely that there would be danger of killing them.

The petioles were harvested from each palm not more than once in two months and then four or five of them were taken.

It became evident that the age of the good petioles varies considerably with the individual palm and that ability to judge the petioles is acquired only by practice. The fiber from too young petioles breaks in the extraction because it is not strong enough, and that from petioles too old breaks because the pulp has dried in it.

At present the percentage of fiber obtained is very small (not more than 10 per cent), but seems to be growing as the pupils become more adept and the palms get into better condition.

A summary of this information would indicate the following statements to be correct:

1. Not all buri palms yield buntal.
2. Palms having an abundant supply of water yield buntal most easily.
3. Given a palm suitably located, the extraction of fiber from the petioles is most easily accomplished if the harvesting of petioles of right age continues without interruption.
4. The best palms are those that have been "trained" by having the petioles pruned from the time they are a year old.
5. The extraction of buntal consists of pulling it from the stem. It is a simple process, but requires strength and practice.
6. The introduction of buntal extraction in a given community requires time and patience and much experimenting with the available palms.

The fact that knotted abaca sells for ₱3.50 a kilo, while buntal (a much coarser fiber) brings ₱4 per kilo, indicates that the cost of extracting this fiber must be very great indeed, and that only a small percentage of extracted fiber can be expected.

Stubborn labor conquers everything. (Vergil—Georgios.)

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"It is trade schools pure and simple that we are in need of to turn out good skilled workmen, who can take positions in their various specialties and acquit themselves creditably alongside of workmen from this or any other country."

EXPLANATION OF INDUSTRIAL COURSES OUT- LINED FOR THE SCHOOL YEAR 1914-15.

FOLLOWING the announced policy of determining from the General Office the industrial subjects which shall be taught in each division, correspondence with division superintendents was begun in the year 1913. Results of this correspondence, together with data obtained for the past few years from industrial surveys, were tabulated and an outline of prescribed industrial work was prepared for each division. This outline was based upon available local raw material, extant household industries, and industries which have been peculiarly successful in the schools, and limits industrial instruction in each division to certain of the courses explained below. These courses cover the whole field of Philippine industrial work.

Household industries for women:

1. Embroidery—

(a) Elementary.

Either elementary embroidery or elementary bobbin lace should be taught in all primary schools beginning with Grade III. A sampler covering the various stitches has been prepared in the General Office. It has been made by student teachers in the Teachers Vacation Assembly, Manila, and will be taught in division normal institutes. The motifs in this sampler might well be placed and combined on small articles, such as collar and cuffs sets and handkerchiefs.

(b) Advanced.

Advanced embroidery may be taught in intermediate schools in any grade. (See courses of study.) Sampler for this work has also been prepared, the motifs of which can likewise be combined. In addition, articles, the designs for which are provided or approved by the General Office, may be made. Special attention should be given to embroidery in towns where graduates of the School of Household Industries are located or where embroidery is an extant commercial industry.

(c) On Philippine textiles.

Philippine textiles are usually embroidered in color. They include pinolpog, sinamay, and buri-raffia cloth. General Office or approved designs should be used. Cross brand colored thread for cross stitch and Key

Household industries for women—Continued.

1. Embroidery—Continued.

(c) On Philippine textiles—Continued.

brand colored thread for darning and satin stitches are recommended. Color charts and directions for procuring them will be provided later from the General Office. Piña embroidery is considered the most advanced form of embroidery.

2. Lace—

(a) Elementary bobbin.

Elementary bobbin lace or elementary embroidery should be taught in all primary schools beginning with Grade III. The lace should be made primarily for home use and should be employed in the course in plain sewing. If it is found that cotton thread is more desired by Filipinos in the locality because it is cheaper than linen, cotton spool thread may be used. Standard patterns have been made in the General Office and will be provided each division. It is believed that this lace when well made from linen thread will also be excellent for export. No other patterns should be used without approval. A month's instruction in elementary crochet may also be advantageously included in this course. No permission is required.

(b) Advanced bobbin.

Advanced bobbin lace is intended for export. Only linen thread can be used. Designs have been furnished by the General Office and no others should be used except on approval. Advanced lace may be taught in any intermediate grade. (See courses of study, Circular 77, s. 1913.)

(c) Other laces.

Other laces should be made only on approval.

3. Tatting.

It is believed that tatting should not be extensively made for export purposes, but if Filipinos develop a taste for it, narrow edgings should be encouraged. It is required in no case. By special permission it can be substituted for elementary bobbin lace.

4. Irish crochet—

(a) Elementary.

By special permission, elementary Irish crochet may be substituted for elementary bobbin lace in certain schools.

(b) Advanced.

The export value of Irish crochet is now rather doubtful, although it is believed that perfectly made articles are always salable in the United States in limited quantity. The course in elementary Irish crochet is intended to produce edgings and insertions

Household industries for women—Continued.

4. Irish crochet—Continued.

(b) Advanced—Continued.

for Filipino consumption. However, well-made edgings and insertions will also have export value. The advanced course should be devoted largely to edgings and insertions, although they may be somewhat wider and the motifs more difficult. In this course larger objects, such as collar and cuffs sets, may also be produced. Patterns for Irish crochet have been furnished by the General Office in the form of a sampler. A month's work in filet crochet may also be advantageously included in this course. No special permission is required. Advanced Irish crochet may be taught in any intermediate grade.

(c) Filet crochet.

Filet crochet seems to have acceptance in the United States and a very limited amount should be done; its use by Filipinos should also be determined. It is best applied to towelings, table linens, and hand bags.

The course must be considered advanced crochet and must be preceded by the elementary Irish-crochet course.

5. Macramé.

Macramé articles should consist principally of hand bags, although other small objects may also be made. Samples have been furnished the field and General Office designs also treat of this work. Other designs should receive approval.

Household arts:

6. Cooking.

Cooking is required in all fourth and intermediate grades.

The course as outlined in Bulletin No. 35 should be followed, excepting where superseded by subsequent texts.

7. Plain sewing.

Plain sewing must be given in all primary grades, and, if necessary, in order to complete the prescribed work, in intermediate grades. Bulletin No. 53 must be completed unless special permission is secured to modify the course.

Mats and hats:

8. Elementary hand weaving—

(a) Soft or pliable strips and straws.

(b) Hard strips ("straws").

These graded courses cover the three primary grades. (See *THE PHILIPPINE CRAFTSMAN*, Vol. II, No. 4.) Samplers have been provided from the General Office. It is believed that they will be found particularly helpful in Grades I and II. Soft strips and straws include the leaf strips and sedges. Hard strips include bamboo, banban, and Polangui materials in general.

Mats and hats—Continued.**9. Mats and mat products—**

- (a) Pandans.
- (b) Buri.
- (c) Sedges.

Work with these materials should correlate with elementary hand weaving. Mat products are card cases, pocketbooks, hand satchels, and the like, the weaving of which is similar to the weaving of a mat.

- (d) Coir door mat.

10. Hats.

The weaving of hats should be correlated with elementary hand weaving and mats and mat products. The kind of hat woven should depend upon available raw materials and extant household industries.

Basketry, including fans, plaques, and other articles made in basket weaves:**11. Bamboo—Rattan—**

- (a) Native baskets.

These baskets are intended primarily for use in the domestic economy of Filipinos, although many of them, either in their present or somewhat modified form, are suitable for export. They are usually made of bamboo and rattan.

- (b) Export bamboo-rattan.

Export bamboo-rattan baskets are those modified native baskets and original baskets intended primarily for export.

12. Polangui basketry.

The particular feature of Polangui basketry is the color combinations obtained with the use of natural colored basketry materials such as palm petioles, fern stems, orchid stems, air roots, and the like.

- (a) Elementary Polangui.
- (b) Advanced Polangui.

13. Vetiver basketry.

Until recently, vetiver roots were used entirely for fans, but now several basket ideas are being worked out.

14. Jewel baskets.

Jewel baskets are found in several types and usually consist of a combination of fibrous materials and wood as, for instance, narra and nito.

15. Buntal.

Buntal can be used extensively in basketry and is usually dyed.

16. Stem baskets.

Stem baskets are made from whole nito, rattan, vines, and air roots in rather coarse weaves.

17. Midrib baskets.

Midrib baskets are produced from the whole midribs of the coconut, buri, and other palms.

Basketry, including fans, plaques, and other articles, etc.—Continued.

18. Coiled baskets—

- (a) Coiled stems, as nito and rattan. Certain midribs can also be used.
- (b) Coiled fiber, as raffia, maguey, and abaca.
- (c) Coiled strips, as pandans, buri, bamboo, lupis, and kilog.

19. Platted baskets.

Platted baskets are those made in simple over and under or hexagonal weaves.

- (a) Pandans.
- (b) Buri.

Slippers:

20. (a) Abaca.

These may have macramé toes but should not be considered part of the macramé course.

- (b) Sedge.
- (c) Maguey-rice straw.
- (d) Bast.

Loom weaving:

21. (a) Hand loom.

Hand-loom weaving should be confined to primary schools. Hand looms are especially adapted to crowded conditions since they take up very little room. (See *THE PHILIPPINE CRAFTSMAN*, Vol. II, No. 6.) Raffia, buntal and other coarse materials are best adapted to hand looms.

(b) Foot loom.

The foot loom, or large frame loom, can be used in intermediate schools. The sling shuttle should be introduced for cotton, silk, and just, and the lifter attachment for weaving in designs where materials and textiles warrant. The use of these two attachments should be particularly brought to the attention of the local household weavers. This distinction between hand loom and foot loom is not in conflict with sections of Circular No. 77, s. 1913, outlining industrial work for girls in the intermediate grades of the general course.

(c) Matting.

Matting should be woven where sedges and lupis are available. The upright loom, General Office model, is recommended.

Carving:

22. (a) Bamboo.

General Office designs may be procured.

- (b) Coconut.
- (c) Wood.

Particularly lanete, but also the first-class woods especially when made into novelties such as paper knives.

Shopwork:**23. (a) Woodwork.**

At least five primary shops giving woodwork should be maintained in all divisions having provincial trade schools or provincial school shops. (See general course for requirements in this course in intermediate grades. Circular No. 77, s. 1913.)

(b) Bamboo-rattan.

When materials are available and it is thought desirable to give instruction in the use of tools, a sufficient amount of work in this subject should be offered, though not to the detriment of other established lines of work already being successfully carried on in the division.

Hand bags:**24. Sedge hand bags.**

Particularly the baqui-baqui and tikug bags. The same shapes may be produced from buri midribs.

Brushes and brooms:**25. Brushes and brooms including tambo, lasa, buntal, coir, cabonegro, and bristles.****Gardening:****26. Gardening is prescribed for primary and intermediate grades. (See Circular No. 77, s. 1913.)****Pottery:****27. Pottery should be taught where materials are available and where an existing industry can be improved.****Miscellaneous:****28. Special articles which are produced in one or two provinces only.****Farm schools.**

It is planned to establish one farm school in each province with two or more in the larger and more important provinces. (See Circular No. 81, s. 1913.)

Trade schools.

It is the desire of the Bureau to change all provincial school shops into trade schools. (See THE PHILIPPINE CRAFTSMAN, Vol. I, No. 1.)

EDITORIAL.

Time works inevitable changes, and editorial boards are subject to its inexorable laws as are other human institutions. Some change in the staff of the present volume will therefore seem quite natural.

**The Editorial Staff
for Volume III.**

The contributions made and services rendered by the editors of THE CRAFTSMAN in connection with the previous volumes were largely a labor of love, in which employees of the Bureau of Education kept at the same time at other appointed tasks in the educational work of the Islands. The same spirit of service and desire for the betterment of the Filipino people along industrial and economic lines will be the guiding policy of the board now in charge, in which the former managing editor, Mr. W. W. Marquardt, assumes the place of associate editor; Mr. L. R. Sawyer, that of managing editor; and the name of Mr. North H. Foreman is added to the contributing editors. It is possible that the names of a few other teachers who have been instrumental in extending the industrial program of the Bureau and have been frequent contributors to this magazine in the past, will be added a little later.

The members of the staff take this opportunity of assuring subscribers that no effort will be spared to maintain THE PHILIPPINE CRAFTSMAN at the same high standard previously reached, both as to contents and mechanical make-up, and bespeak from its readers and others interested in industrial education their loyal support in the matter of subscriptions and contributions to its pages.

Are we setting an impractical standard of fineness in articles made in the industrial classes of our schools? Is there a limit to the fineness of material which we should demand or even encourage?

**Fineness:
Its Limits and
Appropriateness.**

From the viewpoint of utility there is certainly a limit to fineness of material, in proof of which witness baskets that are so fine that the weavers and wrappers do not stand ordinary travel and wear.

Most decidedly there is a commercial limit. The price offered for handwork increases with its fineness only up to a certain

point, after which no further increment is added, or the price increases much less rapidly than the cost of execution. The workers of Lucban receive higher wages from weaving coarse hats than they obtain by making the finer qualities. In general, the people of the United States greatly admire the delicate work on piña, yet they will not pay enough for it so that a worker can obtain returns equal to those earned on pearline shirt-waist patterns.

An objective of industrial instruction the world over is to develop an appreciation of applied arts. Does fineness alone produce an artistic article? When we judge of the beauty of a handicraft product, do we not first consider the effect (its form, color, and design) and later investigate the technic and the quality of material? The fineness of an article should depend upon its size and use. The fine material employed in a small basket intended for the dressing table is hardly appropriate for a utility product like a sewing basket or for so large a unit as a waste-basket.

From an artistic point of view much of our work is inappropriately fine. Moreover, fine and coarse weaves or stitches can be employed in the same article with excellent effect, a fact which is in general not taken advantage of by our teachers and pupils.

The limit of fineness is passed when the strength of the product is impaired or the texture is not appropriate to the use; when the cost of execution is so great that it forces the price above what the public will pay; when the effect obtained does not compensate for the labor required.

The aim of our industrial instruction is not only to give the student an appreciation of applied art, but also to provide him with the fundamentals of at least one industry from which he can earn a living. Since our objectives are practical as well as ethical, are we not justified in considering this subject from the standpoint of utility and commerce as well as that of art? If we are justified, then the great majority of handicraft articles turned out by our schools are too fine. We have been making museum articles.

Just as there exists a limit of fineness, so there is a limit of coarseness below which utility is impaired, price does not compensate for the labor required, and effect is lost.

The fineness of work turned out by our schools should lie between these two limits. The Bureau of Education encourages the production of articles of the finest workmanship because a worker capable of producing the best can also turn out the class

of work demanded by ordinary trade. Our pupils should be able to use the finest materials when and where they are required, but they should understand the commercial limits and the appropriateness of fine materials. Poor execution should, however, never be countenanced in school products, for coarse materials can be manipulated as perfectly as fine materials.

To summarize, our pupils should be able to manipulate the finest materials; yet effect, utility, and technic are the criteria by which we should judge and value their output. All school-made articles should be as perfect as possible, for technic can be perfect in a large way as well as in a small way.

Agriculture will always hold first place in the growth and development of the Philippines. Other industries are only relatively important. Consequently, every effort to extend or improve at once this field becomes a matter of such importance as to arouse exceptional interest.

The Outlook in
Agriculture.

Those governmental agencies which have labored to bring about better agricultural conditions have been dealing with economic problems and have been in close touch at almost every point with the people. The inevitable result has been to make every move an object of deep interest on the part of each citizen. The responsible parties have frequently been subject to criticism and often this has been both premature and unjust. However, much of the criticism has been wholesome and constructive; being close to the people is in many respects a decided advantage as it tends to keep the practical considerations of uppermost importance in the program.

The work which falls to the lot of the Bureau of Education in this field of effort is to give agricultural instruction through the medium of the public schools. Now, nothing is easier than to demand that agricultural instruction of a sort be given as will offer to the youth of the country the opportunity to become practical agriculturists or to fit them to live on the farm as progressive citizens. But to accomplish practical and effective results in conformity with such a program is not so simple as it may seem. Academic training, though ever so simple, is not enough. The object must be to turn out a human product which is a real economic factor.

The greatest obstacle has been the element of cost. Agricultural instruction to be effective is comparatively expensive. It is not enough to set aside a tract of land. Buildings must

also be erected, and the place must be stocked with the necessary animals, tools, and implements. The aim of the Bureau of Education has been to establish in each province a farm school on an area of approximately 10 hectares of good agricultural land and to organize and equip agricultural schools in various parts of the Islands which would give agricultural training on a larger scale to a select body of students. This program is being realized in spite of the difficulties which have been encountered.

Already there are 8 farm schools in successful operation; 4 agricultural schools; and 47 settlement farm schools. These last are for non-Christians and meet the need of giving practical instruction to the children of these people.

In addition to the establishment of special schools whose purpose it is to give instruction in agriculture, the public schools throughout the Philippines have served as a medium for spreading information of better home and rural conditions and for arousing a greater interest in various phases of agriculture. School and home gardens have become almost universal and several successful food campaigns and contests have helped to arouse a deep interest on the part of the public.

But the need is for more ample means with which to carry on the work and extend it beyond its present scope. The campaign will be continued, however, even with limited means. The results are already so manifest as to warrant a continued and renewed effort to advance the work. This year it is hoped that an even larger field will be reached and that agricultural instruction will be given to a greater number under better circumstances than ever before.

The schoolboys who won distinction as winners in the corn-growing contests of the 1913 corn campaign in which 43,516 contestants were enrolled, have been designated. The winners of first, second, and third places in each contest follow: Contest No. 1, the largest production from 100 square meters of land: First, Melchor Roldan, Narvacan, Ilocos Sur; second, Adriano Rabe, Santa Catalina, Ilocos Sur; third, Idao Dickenson, Lagangilang, Ilocos Sur. Contest No. 2, the best five ears: First, Pedro Cariño, Tubao, Union; second, Luis Platon, Tanauan, Batangas; third, Conrado Mendoza, Balanga, Bataan.

It will be due in no small measure to educational contests of this nature that material improvements in economic conditions in the Philippines will be brought about.

Champion
Corn Growers.

INDUSTRIAL NOTES.

THE SEED-CORN SITUATION.

The additional emphasis which is being given to the growing of corn in the Philippines is rapidly increasing the acreage of this cereal and is making it extremely difficult to secure good acclimated seed corn. This situation is intensified by the fact that there are no growers of seeds in the Philippines and good seed corn can rarely be secured at the planting season. Consequently, the boys entering the corn-growing contests will have to depend almost entirely upon corn now available in the community to supply their own needs.

Fortunately, many of the boys enrolled in the corn-growing contests this year were also enrolled during the past year and they have saved the best ears of last year's crop. If this old corn has been properly stored, it should be in good condition. But no matter how well it has been taken care of, one should by all means, however, make a germination test of each ear to get some information on its vitality before planting. This may be done by removing 5 or 10 kernels from each ear to be used as seed. These kernels should be tested by one of the various methods of testing seed corn given on corn poster No. 1. If the test for a single ear does not show a perfect germination, it is advisable to discard the ear as unfit for planting providing other seed corn of good quality can be secured.

Much seed corn will, no doubt, be requested from the Bureau of Agriculture and from other sources by teachers having charge of the corn-

growing contests. It should be remembered that seed moved any great distance seldom, if ever, produces as well as the same variety that has been grown at home and is acclimated. The acclimation of corn is an important item in securing good yields. Corn may be moved east or west a considerable distance without materially effecting its acclimation, but it is seldom advisable to move seed corn north or south more than 100 or 150 kilometers.

Both farmers and teachers have for the past three months been endeavoring to secure good seed corn from various sources. It is regretted that such requests could not be filled or information could not be supplied as to where good seed corn could be secured. This brings to mind the opportunity that awaits some wide-awake farmer in each community in growing good seed corn for sale at planting time. Various boys enrolled in the corn-growing contests could take this matter up and make their corn plots greater money producers. —N. H. F.

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THE COUNTRY SCHOOL AS A COMMUNITY BUILDER.

The present-day rural school is striving to fit itself into the needs of the community where it is found. The school of the open country which fails to root itself to the soil is no longer worth while. The school must be a leader in everyday agricultural life or it will be stamped a failure. One of the many schools which is doing a real work for country uplift is found in western Charles Mix County, South Dakota. The school

is 20 miles from the nearest railroad station, and has been doing a remarkable work for the community for more than twenty years. It was established as a post office which took its name "Academy" from the school itself. The school is organized on the academy or high-school plan and is strong enough to give the people of the western section of the new State all the education they really need for successful farm life.

The founder of the school, Rev. L. E. Camfield, has been seer enough to understand that the country districts ought to have schools so complete in themselves that farm children should not be obliged to go to town to complete their education, since this generally means a weaning away from the farm.

The time when the school was established was a period of panic, of low prices, and mortgaged farms and chattels. Still, out of their poverty and need, the settlers gave, everyone, a little for the school. The local church helped to furnish teachers—the pastor and the pastor's wife who had been college teachers taking part in the work from the first. The pastor from a neighboring parish also devoted a part of his time to teaching. The school received assistance from the church, and in its turn lent aid to the church. In a short while, as smaller district schools were established, these came to be feeders for the academy, which insisted on teaching the universal subjects in a very thoroughgoing manner.

From the school went out in a short time teachers for the entire country community and practical men of affairs in other lines. A school farm was added at a very early date. Here regular lessons in farm building, construction, repairing, the use of machinery, tools, etc., were given. Indeed, general farming was coördinated with classroom practice in

relating the education of the school to the life of the community. The work of the school was practical from the first, doing its utmost to answer the needs of the community. Its enrollment grew from a few students to 145 in a few years. As old buildings were outgrown, the students took an active part in building the new.

A school home life was developed and the teachers have done a great work as companions and leaders of the students by giving them individual help and encouragement. To this may be traced some of the success of the really remarkable men who have gone out from this community. All the household cares and duties of the school are organized under the department of household economics so that the care of kitchen, dining room, laundry, and the living rooms is left largely to the women students under the direction of a competent matron.

One of the things of special appeal is this: The pastor who came to the community in the early days has remained throughout the years, preaching and teaching, building and farming. The Christian spirit of respect and reverence for work, for knowledge, and for duty is strong in the school and equally strong in the community. Here can be seen, then, a typical rural community—satisfied country homes, and a country school, and a country church, each doing its share in helping the people to love the soil and make the most of themselves.

Inspired young men and women who have the real vision of country life needs may find opportunities in every part of our country to do the work that these pioneers have done so successfully in a poor western pioneer district.—*Rural School Letter No. 2, United States Bureau of Education.*

BUREAU OF EDUCATION PUBLICATIONS.

(Abbreviated list.)

ANNUAL REPORTS:

- First to Tenth Annual Reports of the Director of Education. (Supply exhausted.) 1901-10.
Eleventh Annual Report of the Director of Education. 1911.
Twelfth Annual Report of the Director of Education. 1912. (Supply limited.)
Thirteenth Annual Report of the Director of Education. 1913.

BULLETINS:

- 1 to 30. Various subjects relating to the early activities of the Bureau. Editions for the most part exhausted and material obsolete.
31. School and Home Gardening. 1910. Revised, 1913.
32. Courses in Mechanical and Free-hand Drawing. 1910. (Edition exhausted.)
33. Philippine Hats. 1910. (Edition exhausted.)
34. Lace Making and Embroidery. 1911. (Edition exhausted.)
35. Housekeeping and Household Arts. 1911. (Edition exhausted.)
36. Philippine Normal School—Catalogue and Announcement. 1911. (Edition exhausted.)
37. School Buildings and Grounds. 1912.
38. School Buildings—Plans, Specifications, and Bills of Material. 1912.
39. A Manual of Free-hand Drawing for Philippine Primary Schools. (In course of preparation.)
40. Athletic Handbook. 1911. Revised, 1913.
41. Service Manual of the Bureau of Education. 1911. (Edition exhausted.)
42. Intermediate English. 1911.
43. Philippine School of Arts and Trades—Catalogue. 1912. (Edition exhausted.)
44. Libraries for Philippine Public Schools. 1912. (Edition exhausted.)
45. The School of Household Industries. 1912. (Supply limited.)
46. The Industrial Museum, Library, and Exhibits of the Bureau of Education. 1913.
47. Good Manners and Right Conduct. 1913.
48. A Course in Civics. (In course of preparation.)
49. Industrial Fiber Plants of the Philippines. 1913.
50. Arbor Day and School Holidays. (In course of preparation.)
51. Philippine School of Commerce. 1913. (Supply limited.)

BULLETINS—Continued.

52. Philippine School of Arts and Trades—Nautical Department. 1913. (Supply limited.)
53. Elementary Course in Plain Sewing. 1913. (Edition exhausted.)

THE TEACHERS' ASSEMBLY HERALD:

- Volumes I-V. 1908-12. (Supply exhausted.)
Volume VI. 1913. (Supply limited.)

THE PHILIPPINE CRAFTSMAN:

- Volume I. 1912-13. (Supply limited.)
Volume II. 1913-14. (Supply limited.)
Volume III. (Now current.)

TEXTBOOKS:

- Woodworking—A Manual of Elementary Carpentry for Philippine Public Schools. 1908. (Supply exhausted.)
Selected Short Poems by Representative American Authors. 1911. Reprint, 1913.
Commercial Geography; the Materials of Commerce for the Philippines. 1911. (Supply limited.)
Samuel Johnson, Macaulay; Self-Reliance, Emerson; Gettysburg Address, Lincoln. 1911. Reprint, 1913.
Supplementary Problems for Trade Schools and Trades Classes in the Philippine Public Schools. 1913.
Supplementary Problems for Domestic Science Classes. 1913.
Housekeeping—A Textbook for Girls in the Public Schools of the Philippine Islands.
Economic Conditions in the Philippines. 1913.

MISCELLANEOUS:

- Domestic Science—A Guide to Practical Instruction in House-keeping, Sewing, Cooking, and Laundering in Grades Three and Four of the Philippine Public Schools. 1908. (Supply exhausted.)
Some Recipes for Preparing Jellies, Preserves, Pickles, and Candies from Philippine Fruits. 1911. (Supply exhausted.)
Second and Third Annual Reports on Private Schools and Colleges of the Philippine Islands. 1911. and 1912. (Supply exhausted.)
A Statement of Organization, Aims, and Conditions of Service in the Bureau of Education. 1911. (Several editions printed at Manila and Washington.) (Supply exhausted.)
A Talk on Health Conditions in the Philippines. Dr. Victor G. Heiser, Director of Health. 1912.

PHILIPPINE CRAFTSMAN RE-PRINTS:

1. Philippine Mats. 1913.

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